

INTERNATIONAL MARITIME ORGANIZATION



**REPORT**

**ON THE**

**IMO REGIONAL TRAINING COURSE ON**

**MARPOL 73/78**

**IMPLEMENTATION AND**

**ENFORCEMENT**

**COLOMBO, Sri Lanka**

**30 June – 4 July 2003**

Report prepared by:

Henning Menzel  
Maritime Consultant  
Bonn, Federal Republic of Germany



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<b>Title of the Course:</b>	National Implementation and Enforcement of MARPOL 73/78
<b>Host:</b>	Ministry of Environment and Natural Resources, Sri Lanka
<b>Venue:</b>	Hilton Hotel, Colombo
<b>Date:</b>	30 June to 4 July 2003
<b>Type:</b>	IMO Regional Training Course South Asian Sea States
<b>Organized by:</b>	IMO and South Asia Co-operative Environment Programme (SACEP)
<b>Participating countries:</b>	India, Maldives, Pakistan, Sri Lanka
<b>Number of participants:</b>	12 from administrations/governments and 4 lecturers
<b>IMO Project Number and Budget line:</b>	TC 03 RAS/02/326

### **Executive Summary**

IMO has for several years provided assistance for the development of national Plans on Oil Spill Contingency Planning within the South Asian Seas (SAS) Region. Under the South Asian Co-operative Environment Programme, only one of the five participating States has not yet ratified the MARPOL Convention. The SAS States have for several years requested assistance for a training course in a regional or national implementation and enforcement of MARPOL 73/78. The requested assistance is more focused on implementation than on enforcement.

The maritime safety and marine environment protection administrations are now in place in most of the States but without in-depth knowledge of International Conventions, and it has been a wish to receive assistance in the implementation and enforcement of several International Conventions, in this case, MARPOL 73/78. In some of the coastal States it has been considered necessary to develop new or revise existing legislation.

The Course provided selected national staff with information on issues related to national implementation and enforcement of MARPOL 73/78. The participants, representing governmental authorities and agencies gained from the presentations and discussions.

The Course was well received and participants expressed the view that the level was relevant and the outcome was satisfactory. 10 participants out of 12 (83.3%) returned the Seminar Evaluation Forms. Of these, 76.6 % indicated that the goals of the lectures were fully met and that 21.3 % of the lectures met their goal in part. 2.0 % indicated a few lectures "Did not meet"

The participants drafted and agreed on a set of recommendations, which addressed IMO, as well as regional and national responsibilities. IMO was especially asked to consider the planning and organizing of mutual exercises and national seminars to address more directly the specific needs of each country concerned, to provide additional consultancy services to facilitate the transfer of teaching materials and to develop projects to be funded from different sources.



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## **1 COURSE PREPARATION**

The South Asia Seas Programme, after negotiations with IMO announced that the Government of Sri Lanka was prepared to host a Regional Training Course on MARPOL 73/78 Implementation and Enforcement from 30 June to 4 July 2003 at the Hilton Hotel Colombo, Sri Lanka. Representatives of the South Asian Seas States were courteously invited to attend the Training Course.

The Course was planned by Mr John Østergaard, Senior Adviser on Marine Pollution, Marine Environment Division of IMO, who also acted as Course Director.

The preparatory work in organizing the seminar was done by Mr Henning Menzel, an independent maritime Consultant to IMO. He also arranged the participation of the two additional lecturers and prepared the final report.

The Secretariat of the South Asia Co-operative Environment Programme was responsible for all practical and logistical arrangements related to the preparation and implementation of the Seminar.

Handouts for each presentation were provided by the lecturers, copied by the hosts and distributed to all the participants.

IMO publications relevant to the Seminar were distributed to the participants.

The IMO Technical Co-operation Fund covered all costs related to the Seminar, inclusive of travel and Daily Subsistence Allowance (DSA) for the participants except for those coming from Colombo.

## **2 PARTICIPANTS**

16 participants, including 4 lecturers, attended the Seminar. The participants came from: India (2), Maldives (2), Pakistan (3) and Sri Lanka (5). Most of the participants were from national authorities responsible for the implementation and/or enforcement of MARPOL 73/78.

A list of participants is attached as annex I.

## **3 LECTURERS**

The following persons participated as lecturers and covered the following topics:

Mr. John Østergaard, Marine Environment Division, IMO

Topics:

- Course introduction/ distribution of Course materials
- Reporting under MARPOL ( session 6)
- Evidence gathering (10)
- Regional oil spill response (14)
- Course review and evaluation



Mrs. Tatjana Olson, Marine Environment Expert, International Port and Shipping Environmental & Safety Consultancy, Sweden

Topic:

- National implementation of MARPOL (3)
- Port State control (8)
- Documentation and examples on MARPOL compliance (5)
- Reception facilities (11)
- Matters for the protection of the marine environment (13)

Mr Josef Schüsslburner, Senior Legal Officer, Federal Ministry of Transport, Building and Housing, Division for International Shipping Policy and Maritime Legal Affairs, Federal Republic of Germany

Topic:

- National legal framework (4)
- How to respond to violations (7), including
- Legal basis for port State control (part of (8))

Mr. Henning Menzel, independent maritime Consultant, Bonn, Federal Republic of Germany

Topic:

- Presentation of MARPOL (1)
- IMO and Marine Environment Protection Committee (MEPC) (2)
- Role of flag States, classification societies and register of shipping (9)
- Airborne surveillance systems (12)

## **4 BRIEF SUMMARY**

### **Course Programme**

The Programme was initiated on Monday, 30 June 2003 at 09.00 hrs and ended on Friday, 4 July 2003 at 15.00 hrs. The Programme was organized with a morning session from 9.00 to 12.30 and an afternoon session from 13.30 to 17.00 with coffee/tea breaks.

During the week there was an excursion to the Port of Colombo and to CINEC Maritime Campus. All participants appreciated these opportunities.

The Course Programme is attached as annex II.

### **Inaugural Session (Opening of the Seminar)** Inauguration with lighting of Lamp

The Hon. Rukman Senanayake, Minister for Environment and Natural Resources of the Government of Sri Lanka was warmly welcomed as chief guest of the Inaugural Session by Mr. Mahboo Elahi, Director General, South Asia Cooperative Environment Programme (SACEP). Mr. Elahi explained in his welcome address that the Course was organized by SACEP/SAS in collaboration with IMO for participants from the member countries of SAS Programme, namely India, Maldives, Pakistan and Sri Lanka. Unfortunately, delegates from Bangladesh and Myanmar were not able to participate.

In his address the **Chief Guest, Hon. Minister Rukman Senanayake** welcomed the participants to the Regional Training Course on MARPOL Implementation and Enforcement. He emphasized that this training is of special significance not only to Sri Lanka but also to the entire South Asian Region and thanked the International Maritime Organization for the support given to one of the most deserving regions in the world.

In the view of the Hon. Minister the aim of this course is to provide participants with up-to-date knowledge on the application of MARPOL and to help ratify the Convention and its Annexes where necessary. He expressed his expectation that the participants will have an opportunity for an exposure to practical, administrative and operational experiences gained in other parts of the world. Additionally he hopes that the Seminar will foster the co-operation of the agencies and personnel responsible for the implementation of MARPOL 73/78 in the countries of the region and in addition to the Workshop, that IMO will, in the coming months, plan many specific training courses for each country.

With regard to the Workshop organized by SACEP and IMO in August 2000 in Colombo, on MARPOL implementation and port reception facilities, the Hon. Minister referred to the report of that meeting, in particular to the recommendations with regard to the implementation of the Protocol of 1978. In his opinion the present Seminar will keep these recommendations in mind during its deliberations.

Finally, he wished the Workshop all success and thanked the foreign participants for coming and hoped that they will find some time to enjoy the nature and its treasured culture during their stay in Sri Lanka.

**John Østergaard, the Course Director**, gave the opening speech on behalf of Mr. William O'Neil, the Secretary-General of IMO. He welcomed everybody to the Seminar and thanked the Minister of Environment and Natural Resources of Sri Lanka for hosting the Seminar and for all the assistance provided so far. He thanked the staff at SACEP who without any complains and in a very efficient way again have organized and prepared all the logistics for this Training Course. He explained that the reason why the two missing countries could not participate is possibly due to late communications and misunderstanding between IMO and SACEP and the responsible administrations of the invited countries. In order to facilitate better communications the participants of the Seminar were asked to fill in an information list covering details (contact persons) with regard to national MARPOL implementation and enforcement and national Authorities responsible for oil spill response.

Mr Østergaard referred to IMO's close cooperation with SACEP during the organisation of the Workshop in 2000 and the identified need for further assistance to the region on implementation and enforcement of MARPOL 73/78 by organizing a new regional course dedicated to MARPOL implementation and enforcement. The idea of a regional course was supported in IMO and the necessary funding for providing assistance was allocated. Unfortunately, IMO had never implemented such a course before, and therefore a new course had to be developed. In this connection he pointed out that not all the six South Asian Coastal States had fully ratified MARPOL and that several of these States are Parties of the voluntary Annexes.

Mr Østergaard pointed out that this training course on MARPOL implementation and enforcement will provide in-depth knowledge on how to transfer the application of MARPOL into national legislation and what kind of instruments have to be in place at the national level. Furthermore the Course will consider the kind of requirements necessary as flag State and as port State and to prosecute alleged violations.



In his closing remarks he expressed hope that at the end of the Course all participants would have succeeded in obtaining an in-depth knowledge on the duties and responsibilities of a "Party to MARPOL 73/78" and consider ratification of any outstanding Annexes of MARPOL.

## **National MARPOL implementation**

During the Monday morning session, a representative of each of the four participating countries was invited to present a brief status on MARPOL implementation and enforcement of his/her country as well as other items of interest. The following information was provided:

### **India**

#### **1 Status of Ratification of MARPOL 73/78**

India has ratified mandatory Annexes I and II of MARPOL 73/78. The process of ratification of other Annexes is under active consideration by the Government.

#### **2 Ministry / Administration**

Responsible Ministry: Ministry of Shipping, New Delhi, India

National Administration: The Directorate General of Shipping, Mumbai, India

#### **3 Inspection and Certification:**

3.1 The Directorate General of Shipping, Mumbai and its allied offices, i.e. Mercantile Marine Departments (located at Mumbai, Kolkata & Chennai), issue the Certifications required under MARPOL 73/78. The inspection and survey pertaining to the certification is delegated to the Indian Register of Shipping and few selected Classification Societies which are members of IACS. The Classification Society issues the interim certificate after the inspection and forwards the report to the Mercantile Marine Department. Reports are scrutinized and if found satisfactory, full term certificates are issued. Vessels which are built in Indian shipyards are inspected and certified by the surveyors of the Mercantile Marine Department.

3.2 Ports are administered as per the Major Ports Act and other related Rules. Harbor Masters and Pilots boarding the vessels for inward movement into port report to the national Administration if any, MARPOL or seaworthiness related deficiencies are observed.

#### **4 Relationship between MARPOL Enforcement & National Oil Spill Response Organization**

MARPOL enforcement is divided into two parts, namely, pre spill inspection and post spill scenario. National Administration is directly responsible for all inspection and certification in as far as equipment and port State / flag State control inspections are concerned.

The subject of combating oil spill is essentially controlled by individual ports and Coast Guard and for this purpose a National Oil Spill Disaster Contingency Plan (NOS-DCP) is drawn up.

## **5 Reception Facilities**

Port reception facilities for ship-generated wastes are available. Most of the major ports are equipped with the reception facilities.

Arrangements for garbage collection from ships exist, and are operational in all major ports.

## **6 National Enforcement through Flag and Port State Control:**

Strict compliance is ensured by carrying out flag and port State control inspections. India being a member of "Indian Ocean MOU" ensures that ship complies with required standards.

## **7 Ports**

India has 146 harbors of which 31 are commercial ports. Each port is administered by an autonomous body called Port Trust under the provisions of Major Ports Trust Act, 1963 and the Indian Ports Act of 1908 as amended from time to time.

# **Maldives**

## **1 Introduction**

The geographical location of the Maldives places the country in close proximity of a major oil tanker route. The density of marine, especially oil tanker traffic, off the northeast coast of the Maldives is quite substantial, hence making the region susceptible for oil pollution hazards.

An oil tanker accident, on such a route, if the weather conditions remain unfavourable, from a Maldivian point of view, could threaten marine life and coastlines (tourism) the two key sectors of the economy, fisheries and tourism.

In this view, the Government of the Republic of Maldives has given high priority to the protection of the fragile environment of the Republic of Maldives.

The preventing programmes include working actively with littoral states and the shipping community to ensure safe shipping. The Maldives have put in place from an early stage, legislation to prevent pollution, such legislation provides for severe penalties for those who cause the pollution, such regulations are in line with the International Conventions.

## **2 Status of Ratification**

Maldives has not ratified MARPOL 73/78 and its Annexes, but the importance of the Convention is recognized and many provisions of the Convention are officially adhered to. Oil spill response is given a high priority and Maldives has in place a contingency plan along with regional contingency plans.

## **3 Ministries/Administration**



The Ministry of Home Affairs, Housing and Environment provide laws and regulations to protect fragile environments.

The Ministry of Transport and Civil Aviation is concerned with IMO matters and ensures that the national commercial fleet is operated in accordance with IMO standards.

The Coast Guard collaborates with the Ministries to monitor pollution of the marine environment. Patrol vessels are strategically stationed at the various regions of the Maldives to overlook the marine activities and have the responsibility of attending to emergencies such as oil spills. The Coast Guard has its own logistics and clean-up supervisory teams for the effective clean up of oil spills at sea.

Pollution damage claims and statements of charges are processed through the Ministry of Home Affairs, Housing and Environment.

#### **4 Reception Facilities/ Disposal of Ship Generated Waste**

The local shipping agents are responsible to arrange collection of food wastes, maintenance - and cargo-associated waste. Maldives has private parties who undertake garbage collection for a fee and dispose through the Waste Management Department.

#### **5 Conclusions**

Though Maldives has a long way to comply with many IMO Conventions, the Government of Maldives is taking concrete steps to comply with many of the provisions of IMO Conventions.

MARPOL 73/78 is one Convention where the importance of the Convention is recognized and many of the issues are being adhered to already as local regulations.

### **Pakistan**

#### **1 Status of Ratification of MARPOL 73/78**

- Pakistan has ratified Annexes I and II of MARPOL 73/78 together with Annexes III, IV and V; ratification of Annex VI is under study.

#### **2 Responsibilities**

- The regulatory authority is the Directorate of Ports & Shipping, a separate division within the Ministry of Communications. The National Administration has authorized the following classification societies to conduct surveys and issue MARPOL related Certificates to Pakistan flag ships: **LR, ABS, GL, KRS, DNV & NKK.**
- The SOPEP is certified and approved by the Maritime Administration of Pakistan.

#### **3. Responsibilities in Ports**

- The two major ports in Pakistan are well equipped to handle breakbulk, container and oil cargoes.

- The ports are administered by a Board of Trustees but the Regulatory Authority is the Ports & Shipping Wing of the Ministry of Communications.
- The Marine Pollution Control Centers in ports are the main offices functioning in the enforcement of MARPOL requirements.
- These offices also work as the main liaison for reporting and response to oil spills within the harbour/port limits (within 12 NM)

#### **4. MARPOL and National Oil Spill Organization**

- The office of Chief Nautical Surveyor in the 'Ports & Shipping Wing' is the main liaison office and Regulatory Authority.
- The Maritime Security Agency (MSA) has the function of surface and air surveillance, information and control within the E.E.Z (200 NM).
- The Marine Pollution Control Center (MPCC) in ports, exercises pollution control within the national framework.

#### **5 Port Facilities**

- Mobile facilities in the form of road trucks, motor boats and towed barges from local contractors available for collection and disposal of all kinds of garbage (except bulk chemicals).
- The contractors are licensed by the port authority.
- The MPCC monitors final disposal of ship generated wastes by close liaison with EPA (Environment Protection Agency)

#### **6 Conclusions**

The Maritime Administration is actively addressing the issues relating to MARPOL both in terms of national framework and equipment at national level by developing a National Action Plan.

Pakistan Maritime Administration is moving actively at regional level to develop a Regional Contingency Plan for cleaner Arabian Sea in line with IMO's objective of CLEANER OCEANS.

Delegates from Pakistan participated in the Seminar because of Pakistan's commitment to IMO's objectives.

### **Sri Lanka**

#### **1 Status of Ratification of MARPOL 73/78**

Sri Lanka has ratified the mandatory Annexes I and II of MARPOL 73/78 together with Annexes III, IV and V. The process of ratifying Annex VI has started.



## **2 Ministries / Administration**

For Enforcement

Responsible Ministry: Ministry of Ports Development and Merchant Shipping  
National Administration: Directorate of Merchant Shipping

For Implementation:

Responsible Ministry: Ministry of Fisheries and Ocean Recourses  
National Administration: Marine Pollution Prevention Authority

## **3 Field of Work of the Directorate of Merchant Shipping**

- Monitoring of pollution prevention process
- Port State Inspection of ships for pollution prevention equipment and procedure
- Flag State inspection for implementation of MARPOL
- Receiving feedback from harbour pilots regarding potential pollution threats

## **4 Field of Work of the Marine Pollution Prevention Authority**

- Make necessary legislation to implement MARPOL 73/78
- Institute legal action against violators
- Co-ordinate pollution prevention and control with the Directorate of Merchant Shipping and the Ports Authority
- Oil Pollution Contingency Plans:  
Preparation and implementation in concurrence with the Directorate of Merchant Shipping, the Ports Authority and SACEP

## **5 Reception Facilities**

Reception facilities in ports are provided by private contractors and licenced by the Port Authority.

# **5 COMMENTS ON EACH LECTURE AND OTHER EVENTS**

### **Course Introduction**

**By Mr. John Østergaard**

The introduction lecture provided information on administrative, practical and logistical arrangements for the Seminar, as well as setting out its general objectives. The Course Director also provided a general presentation of the other lecturers as well as the participants of the Seminar. He pointed out that only by good co-operation and active participation would it be possible to meet the objectives of the Seminar.

**Presentation of MARPOL 73/78 (session 1)**  
**By Mr. Henning Menzel**

The **Convention for the Prevention of Pollution by Ships** was signed at a diplomatic Conference in 1973. Together with Protocol I (Provisions concerning Reports on Incidents involving Harmful Substances) and II (Arbitration) MARPOL 1973 was substantially amended by the Protocol of 1978, and by several other amendments over the following years.

The obligations agreed by the Parties to MARPOL 73/78 in articles and regulations relating to different types of ship-generated pollution are contained in six Annexes regarding oil pollution from ships and oil tankers; pollution from chemicals carried in bulk; pollution from hazardous substances carried in packaged form; pollution from sewage; pollution from garbage; and the new Annex VI on prevention of air pollution from ships. The application of these Annexes were explained in detail during the lecture.

**IMO and work of MEPC (session 2)**  
**By Mr. Henning Menzel**

The Marine Environment Protection Committee (MEPC) is the essential IMO body responsible for MARPOL matters. The first meeting took place in 1974, one year after the MARPOL Convention was signed. MEPC has three meetings within a two-years' period; at the last MEPC session (October 2002) 87 Parties (including Bangladesh, India and Sri Lanka) and about 40 NGOs (non-governmental Organizations) were represented. The 49<sup>th</sup> session took place from 14 to 18 July 2003.

The lecturer presented the main topics of last year's MEPC session and summarized the result of the discussion relating to: harmful aquatic organisms in ballast water; recycling of ships; prevention of air pollution from ships/greenhouse gas emissions; implementation of the OPRC Convention and the OPRC-HNS Protocol; identification of special areas and particular sensitive sea areas (PSSA); inadequacy of reception facilities; promotion of implementation and enforcement of MARPOL; harmful effects of the use of anti-fouling systems for ships. For the next session additional, topics are on the agenda, e.g. amendments of Annex I, Reg 13F (acceleration of the phasing-in time of double hull for single hull Oil tankers) and the OECD paper on cost savings through non-compliance with international Regulations and Standards.

**National implementation of MARPOL 73/78 (session 3)**  
**By Mrs. Tatjana Olson**

The lecture comprises:

- .1 legal and administrative aspects of the implementation of the MARPOL 73/78 Convention at the national level,
- .2 responsibilities,
- .3 main groups involved in the implementation and enforcement, and
- .4 actions by the national Maritime Administrations, ship operators/owners and Port Administration.

**National legal framework necessary to implement MARPOL (session 4)**  
**By Mr. Josef Schuesslburner**

The necessity was emphasized to do more than merely passing the act of ratification of MARPOL 73/78 in order to ensure proper implementation of the obligations contained in this international Convention. Apart from determining the competent authorities for required certification, surveillance and control by an act of implementing whatever legal nature it was described as essential to convert, as far as suitable, by an act of legal transformation of international obligation addressed to Contracting Parties into obligations of private natural or legal persons, primarily of the ship owner and the master of the ship. The creation of these obligations, especially if connected with sanctions for violations was likely to involve more than only passing the ratification Act. The lecture outlined how MARPOL 73/78 has been legally implemented in Germany to demonstrate the possible ways and means to achieve that goal at least with respect to the legal framework. The major facility to this end was the enactment of a new safety concept in line with the ISM-Code by the Maritime Safety law, which lists in its Annex all relevant legal obligations deriving from international treaties and conventions to be observed by the persons operating a seagoing ship. This methodology of implementation appeared necessary since not all obligations of MARPOL 73/78 and its annexes could be considered self-executing but have been drafted in a generalized way (like: "... in new ships .... no ballast water shall be carried in any oil fuel tank").

The lecturer emphasized that the primary responsibility for the implementation of MARPOL was placed on the Flag State, which could exercise full authority on ships entitled to fly its flag, whereas the authority of Coastal and Port States was of a limited and supplementary nature. States could convincingly exercise port State control only after successful establishment of a system of MARPOL implementation to comply with their obligations as flag States.

**Documentation and examples of MARPOL compliance (session 5)**  
**By Mrs. Tatjana Olson**

The lecture is focused on:

- .1 control of the compliance with the requirements for control of operational pollution under regulations 9, 10, 11 of the MARPOL 73/78 Convention, retention of oil on board and oil discharge monitoring and control system and oil filtering equipment under regulations 15 and 16 of the MARPOL 73/78 Convention,
- .2 control of sludge retention on board, tanks and pipeline arrangements,
- .3 IOPP certificate and it's Supplement (Forms A and B), Oil Record Book (Part I and II), SOPEP, Enhanced Survey Report File, International COF (Annex II), Cargo Record Book, International NLS, Shipboard Marine Pollution Emergency Plan for NLS, Dangerous Goods Manifest or Stowage Plan, International Sewage Pollution Prevention Certificate, Garbage Management Plan and Garbage Record Book, and
- .4 validity of certificates and other relevant documents.

**Reporting under MARPOL 73/78 (session 6)**  
**By Mr John Østergaard**

The lecture is primarily focussed on Protocol I to MARPOL 73 on Provisions concerning reports on Incidents involving Harmful Substances. Protocol I was adopted at the same Conference as MARPOL 73. The Protocol was subsequently amended in 1985 and 1996.

Protocol I set out the mandatory duty of a master or other person having charge of any ship which is involved in an incident, to report - when to make reports, the contents of report and the reporting procedures.

Parties shall by law issue national reporting requirements and procedures in reporting incidents involving harmful substances. The national reporting requirements and procedures shall be based on Guidelines developed by IMO. Guidelines etc. on reporting is to be found in IMO Publication IMO-516E "Provisions concerning the reporting of incidents involving harmful substances under MARPOL 73/78". Further, the lecture identified all mandatory reporting to be made by a Party to MARPOL 73/78.

### **How to respond to violations (session 7)**

**By Mr. Josef Schüsslburner**

The requirement of MARPOL to establish sanctions for violation was taken as a clear indication that States would have to do more than only passing the ratification act. The relevant paragraphs of the German penal code and its amendments with respect to the extension of jurisdiction were outlined, which had been found necessary to comply with MARPOL obligations as flag State as well as coastal and port State. In addition, the special legislation on infringements of MARPOL 73/78 obligations was depicted in some detail. Though infringements would be considered to be of a different quality than criminal offences, nevertheless all the constitutional safeguards developed in the area of criminal law such as prohibition of dual jeopardy, legal certainty (*nulla poena nullum crimen sine lege*) and the procedural guarantees would apply. Therefore, port State control would never qualify as a profit making business.

Administrative enforcement and further legal consequences of violations that qualify as offences or serious infringements with respect to the professional licence as ship master and other permits were also mentioned. Again, it was stressed that the full consequences of the law could only be applied by the flag State while international law imposes restrictions on the exercise of jurisdiction by both the coastal and the port State with respect to foreign ships. To demonstrate that enforcement provisions were not only written in the law books but also effectively applied, some statistical presentation of the situation in Germany was given. As major flaw in the area of enforcement, the lack of effective feedback reporting of flag States regarding their actions on the findings of the coastal States was identified.

### **Flag State and Port State Control (session 8)**

**By Mrs Tatjana Olson and Mr Josef Schüsslburner**

The lecture covers the actions by the Maritime Administrations to supervise ships entitled to fly the State's flag and foreign ships calling at the ports within the countries jurisdiction including practical steps to be undertaken during inspection of ships, detainable deficiencies and information on regional Memorandum of Understanding on port State control.

The weakness of certain flag States to enforce violations of MARPOL obligations had effectively caused the increase of port State control, especially in the framework of the Paris Memorandum of Understanding, the basic features of which were dealt with. Since the exercise of port State control with respect to foreign ships had inherent limitations, the major reaction of port States to continuous serious violations would be to ban ships flying the flags of certain States **with bad showing???**. The legality of this reaction under international law was asserted.



**Role of Flag State Authority, National Register of Shipping and role of Classification Societies (session 9)**

**By Mr. Henning Menzel**

The Administrations of Parties to MARPOL 73/78 are responsible for taking the necessary measures to ensure that ships flying their State's flags comply with the provisions of this Convention including surveys and certification. Flag States may authorize recognized organizations (Classifications Societies) to act on their behalf in the surveys and certification. As an example the role of Germanischer Lloyd (GL) was described. GL is authorized by 118 Flag Administrations as Recognized Organization and is located in 135 countries. It was further explained that the United Nations Convention of the Law of the Sea (UNCLOS) requires maintaining a "national register of ships" as a duty of the flag State.

**Evidence gathering and documentation (session 10)**

**By Mr John Østergaard**

The lecture provided information on the importance of having in place appropriate national procedures for evidence gathering and documentation in order to ensure prosecution of a ship that has violated national or international discharge requirements.

The identification of the polluter (source of an oil spill incident) is most essential for an effective prosecution. When there is an oil sample available, a laboratory analysis will follow.

A comparison of the spilled oil with a sample from its potential source can provide evidence of the source of oil. The lecturer pointed out that the integrity of samples at every point from collection through shipment and analysis is important.

Ideally, the national responsible authority should identify an independent laboratory with appropriate equipment and capacity. To date, the International Standard Organization (ISO) has not developed a set of standards governing the analysis of waterborne oil spill samples. The ASTM and NORDTEST have approved standards governing the analysis of waterborne oil spill samples. The lecturer recommended to use the standards developed by NORDTEST from Finland and reported in the publication NT CHEM 001, edition 2: Oil Spill Identification.

**Reception facilities in ports (session 11)**

**By Mrs Tatjana Olson**

The lecture is focused on obligations of the States which are Parties to the MARPOL 73/78 Convention to provide reception facilities in their ports, and also include aspects on planning, adequacy, assessment of adequacy/efficiency and financing of reception facilities (including the "no-special fee system introduced in the Baltic Sea area")

## **Airborne Surveillance System (session 12)**

**By Mr Henning Menzel**

The North Sea and the Baltic Sea are among the busiest maritime regions in the world. An important element of the German precautionary concept to protect the marine environment against marine pollution is airborne surveillance. This surveillance system provides for the detection and analysis of pollution and operational control of the state-owned pollution response vessels.

This system will also improve the securing of evidence required for the prosecution of illegal discharges from ships.

Although satellites with radar sensors are capable of detecting changes on the sea surface; a distinction between mineral oils, natural fish oils, monomolecular films or water surfaces with low wind speeds are not possible. Furthermore, they are not suitable for operative oil surveillance because the long repeat times over a particular area do not allow for sufficient coverage.

The German airborne surveillance system was procured by the Federal Ministry of Transport starting in 1986 and modernized and replaced in different steps from 1989 to 1998. The operation and maintenance of the two aircraft (Do 228 LM) is carried out by the German Navy.

To have an effective deterrent, the operating schedules are continuously changed. The individual airborne measuring system consists of an aircraft with remote sensing equipment, which includes sensors using different physical effects. Combining them meets the requirements of range and the independence of daylight and weather:

- Side-looking Airborne Radar (SLAR)
- Infrared/Ultraviolet Scanner (IR/UV Scanner)
- Microwave Radiometer (MWR)
- Laserfluorosensor (LFS)

Airborne surveillance became an important and indispensable part of the preventive measures to reduce marine pollution. The capabilities of the aircraft and the sensor equipment have been fully explored. They represent the latest state of technology and are unique in this configuration worldwide. Airborne surveillance systems for the detection of marine pollution and their co-ordination are becoming more and more important for cooperation at the international level.

## **Other measures to protect the marine environment (session 13)**

**By Mrs Tatjana Olson**

The lecture is based on the latest document of the 48<sup>th</sup> session of the MEPC with regard to harmful aquatic organisms in ballast water and ballast water treatment techniques, identification and protection of Special Areas and particularly Sensitive Sea Areas and harmful effects of use of anti-fouling systems for ships including the description of the International Convention on the Control of Harmful Anti-fouling Systems for Ships, 2001 (the AFS Convention) and the latest IMO Working Group's amendments of the Convention made in March 2003.

## **Regional co-operation on Oil Spill Response in the South Asean Sea Region (session 14)**

**By Mr John Østergaard**

With regard to regional co-operation and national implementation and enforcement of MARPOL 73/78, special emphasis was given to regional co-operation on oil spill preparedness and response.

The lecturer pointed out the **Action Plan for the South Asian Seas**, which was adopted in New Delhi, India in March 1995. The Action Plan is based on UNEP Regional Seas concept and agreed, i.e., to develop and implement **National and Regional Oil Spill Contingency Plans**. In the Action Plan it is emphasized "...each Party shall endeavour to maintain co-operation and setting up contingency plans."

The **Draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia** was explained (for the entry into force there is only one signature missing )

Furthermore the lecturer pointed out the relevant Paragraphs of the **Draft Memorandum of Understanding (MoU) for Cooperation in Response to marine oil and chemical spills in the South Asia Region** approved in Colombo by a High Level Meeting in December 2000.

## **6 FIELD TRIP TO THE PORT OF COLOMBO**

By the invitation of the Sri Lankan hosts, a visit to the Port of Colombo was arranged.

The Director of the Port Authority of Colombo welcomed the Group. The Director and his colleagues explained the situation of the Port and its positive economic development. The participants got the possibility to seeing the port during a bus tour around the port area.

The Port of Colombo is specialized for Container Services. There are 9 fully equipped berths situated at three Container Terminals (Jaya Container Terminal, South Asian Gateway Terminal and Unity Container Terminal). The Port of Colombo has an excellent feeder network all over the South Asian Seas Region. The Port managers are proud of the **total reliability** of its 24 Hr service, 365 days a year.

Besides the Oil Terminals, there are a number of berths suitable for handling general and dry cargoes in bulk. In the port area there are reception facilities for ship-generated oily waste and oil cargo residues, which are available also for all ships calling at the port of Colombo in respect of oily wastes.

The Port Authority of Colombo is aware of the importance of protecting the marine environment, and takes good care of the port area. No traces of oil on the water surface or floating garbage were observed in the harbour area during the visit.

With regard to the new issue of security against terrorism it was explained that the Port of Colombo is a "model" of highest security.

Some port areas are under reconstruction with the aim of increasing cargo turnover.

## **7 FIELD TRIP TO THE CINEC MARITIME CAMPUS**

The hosts of SACEP arranged a trip to **COLOMBO INTERNATIONAL NAUTICAL AND ENGINEERING COLLEGE (CINEC)**. Capt. Asitha Wijesekera, Managing Director and the Director of Engineering and Director of Maritime Operation, welcomed the Group. In their introduction the Mission of CINEC was explained as follows:

Mission at Colombo International Nautical and Engineering College is to ensure that students are offered quality education with direct relevance to employment. The college strives to build working partnership with the industry, professional organizations and other stakeholders to serve in the interest of customers while projecting an image as leading vocational training institutions in Asia.

During the tour round the campus (still under construction) and the workshops, the Group was impressed by the high quality of the technical and electronic equipment including a “full mission ship manoeuvring Simulator” and an “engine room Simulator”. It was further explained that the CINEC was situated for 13 years in a different location and that the official opening of the new CINEC Maritime Campus will take place in autumn this year. With regard to the Diploma issued to students at the end of their studies, it was mentioned that under special circumstances Australian or United Kingdom Diploma was offered.

The participants enjoyed their visit to CINEC Maritime Campus.

Many were of the opinion that a similar Institution was needed in their respective country.

## **8 DEVELOPMENT OF SEMINAR RECOMMENDATIONS**

The participants gathered in two ad-hoc Working Groups and reflected the outcome of the Seminar on the basis of 10 questions developed by the lecturers. The purpose of this exercise was to elaborate Seminar recommendations addressed to their own national authorities as well as to IMO. The proposals were discussed in Plenary, amended and agreed unanimously. The questions and the Seminar recommendations are outlined under Item 13 of this Report.

## **9 DEVELOPMENT OF INFORMATION ON NATIONAL STATUS ON THE IMPLEMENTATION AND ENFORCEMENT OF MARPOL 73/78**

A questionnaire was distributed to each of the four participating South Asian Sea States requesting identification of the national Administration and a contact person responsible for implementation and/or enforcement of MARPOL 73/78 and their national authority responsible for oil spill response. With regard to port reception facilities, information on type of wastes that will be accepted in ports together with information on contact person(s) (Harbour Master) was to be provided.

The completed formats from the four countries are attached as annex III.

## **10 COURSE REVIEW AND EVALUATION**

The combination of topics covered by the lecturers as legal, administrative and technical aspects concerning implementation and enforcement of MARPOL 73/78 within the South Asian Sea Region was adequate to meet the goals of the Seminar.



The number of questions asked after each lecture was limited. But informal discussions outside the meeting room showed a more profound interest by majority of the participants.

The evaluation forms were distributed and recollected by the Course Director.

## 11 COURSE CERTIFICATES AND CLOSING CEREMONY

Mr. Mahboob Elahi, Director General, South Asia Cooperative Environment Programme, presented the Certificates to the participants, after which he stated in general that the Certificates were to demonstrate that everyone had achieved some thing that will facilitate the improvement of their common marine environment. He pointed out that in the future there would be five more Workshops in the South Asian Seas Region. He thanked IMO very much for providing the funds to arrange this Workshop. Finally, he thanked the participants for coming and the lecturers for presenting their topics including their national experience.

In his closing speech the Course Director thanked, on behalf of IMO, the Minister of Environment and Natural Resources of Sri Lanka for hosting the Seminar. He also thanked SACEP for organizing the Seminar and for the field trips to the Port of Colombo and the Colombo International Nautical and Engineering College (CINEC)

He thanked the participants from India, Maldives, Pakistan and Sri Lanka for coming because without them a course on MARPOL implementation and enforcement would not be possible. Finally, he thanked the lecturers for presenting their topics.

## 12 CONCLUSIONS

The Course has given to the participants a better understanding of the necessity to properly implement and enforce MARPOL. In this respect the definition of obligations of natural and legal persons deriving from MARPOL provisions is essential. The functions, duties and responsibilities of national maritime Administrations under the MARPOL Convention were described in detail focussing on the role and procedures of both flag State and port State control. Additionally, the functions of Classification Societies related to the documentation required by many regulations of the MARPOL Convention have been explained. Participants showed interest in the demonstration of new technologies in airborne surveillance as part of detecting pollution of the sea.

## 13 RECOMMENDATIONS

At the end of the Seminar the **following questions** for consideration were put to the participants with the aim of developing Seminar Recommendations addressed to their own national authorities as well as to IMO:

1. What further steps could be taken to improve the current state of the marine environment of the South Asian Seas?
2. What activities at the national level are needed to improve the implementation of MARPOL 73/78 in order to comply with the obligations of a flag State, coastal State and port State?
3. Does the Group think that the responsibility of a ship owner and master of the ship to perform according to MARPOL should be better provided for in national legislation?

4. Does the Group consider that enforcement of relevant international conventions is sufficient? If not, what initiatives should be taken to improve the situation?
5. Does the Group consider that national legislation should ensure that violations by responsible persons be punished?
6. Does the Group consider that regional co-operation on port State control is effective? If not, what should be done to improve such co-operation?
7. Do the participants consider that additional activities should be undertaken fully to put in place the contingency plan for combating pollution of the South Asian Sea area by oil and other harmful substances?
8. Does the Group consider that adequate reception facilities for ship-generated wastes are available in all ports of the South Asian Seas Area? If not, what initiatives might be taken to improve the situation?
9. Do the participants think that a fee system for the use of reception facilities should be introduced based on jointly agreed principles?
10. What further assistance from IMO does the Group consider would facilitate improvement to the general state of protection of the marine environment, the maritime safety and security?

The participants of the Seminar agreed to the following **Recommendations**:

1. Countries take further steps to improve the current state of the marine environment. Governments should implement and enforce flag and port State control and increase surveillance of the main shipping route, in which oil tanker's traffic is moving;

Resources, equipment and trained personnel have to be increased;

Training and exercises should be carried out regularly on national level and within regional co-operation to ensure uniform implementation of MARPOL.

2. To comply better with the obligations of a flag, coastal and port State the national legislation has to be made fully consistent with MARPOL. Ratification of the relevant Annexes of MARPOL 73/78 is essential.

Ratification of CLC Convention and Fund Convention 92 by States that have not done so far would lead to an active participation of the importers of oil providing the premium to the fund.

Recourses and funding – for enhancing port State control and training of the end users – such as oil companies, agents, charterers, superintendents and operational personnel is necessary.

3. National legislation should clearly establish the responsibility of both ship owner and shipmaster for performing according to the MARPOL requirements.

4. While the Conventions are in place, tightening of loose ends is required, i.e. more enforcement is necessary. Due to scarcity of resources and trained personnel, implementation of MARPOL is still not effective. Therefore additional recourses such as personnel are necessary and for this the Administration has to take more responsibility.
5. To provide punishment for contraventions against MARPOL Regulations is necessary condition for national enforcement.
6. Co-operation between the States of the region is impaired by the lack of communications among those States. Therefore a better line of communication and co-operation between MOU - States has to be established to enable exchange of information among those States.

To fulfil the requirements of MOU's inspection targets the PSC may be facilitated by accepting inspection reports of other MOU States.

7. The contingency plan for combating pollution of the South Asian Seas Area should be accompanied by additional awareness, training, practical drills and exercises;  
For related seminars there should be a gradual upgrading of the participants to a higher level.
8. Participants consider the reception facilities in the ports of the South Asian Seas Area inadequate. In order to improve this situation the responsible persons in the respective ports may have to be made accountable for lack of reception facilities by the Ministry concerned.
9. Reception facilities should be conducted following national rules and circumstances;  
But it is recommended to introduce a regional fee system - if possible - based on jointly agreed principles to avoid shifting the burden to neighbouring States.
10. IMO should frequently organize more workshops, seminars, training and awareness programmes for all personnel related with the enforcement of IMO Conventions and conduct practical exercises under its supervision. To this end the IMO funding should be increased to enhance technical knowledge of the related responsible persons.

Consultants may also be drawn from a panel which should consist of experienced persons involved in different administrations, carrying out day to day job.





# ANNEX I



## REGIONAL TRAINING COURSE ON MARPOL 73/78 IMPLEMENTATION AND ENFORCEMENT

30<sup>th</sup> June to 4<sup>th</sup> July 2003, Colombo, Sri Lanka

### LIST OF PARTICIPANTS

LIST OF PARTICIPANTS		
COUNTRY DELEGATIONS		
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	India	India
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	Fax: (91-22) 2261 3655	Fax: (91-22) 201 3307
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<b>MALDIVES</b>	Capt. Ahmed Rasheed	Capt. Ali Rasheed Ibrahim
	Harbour Master	Harbour and Port Pilot
	Maldives Ports Authority	Maldives Ports Authority
	MPA Building	MPA Building
	Bodutahkurufaanu Magu	Bodutahkurufaanu Magu
	Male 20-01, Maldives	Male 20-01, Maldives
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	Karachi, Pakistan	Karachi - 75780, Pakistan
	Tel: (92-21) 920 4000 -Office	Tel: (92-21) 235 0272-6 Ext 203 or 275
	(92-21) 457 4796 - Residence	(92-21) 235 1209 - Residence
	Fax: (92-21) 920 3974 / 568 3892	Fax: (92-21) 235 0271
	e-mail: <a href="mailto:sarfaraz@pnsc.com.pk">sarfaraz@pnsc.com.pk</a>	e-mail: <a href="mailto:marcadmy@cyberaccess.com.pk">marcadmy@cyberaccess.com.pk</a>

	Mr. Mohammad Zafar Shaikh	
	Chief Engineer & Ship Surveyor	
	Ministry of Communications, Ports & Shipping Wing	
	Plot No.12	
	Mai Kolachi Bye Pass	
	Karachi -74200. Pakistan	
	Tel: (92-21) 920 4188 - Office	
	(92-21) 664 8497 - Residence	
	Fax: (92-21) 920 4191, 920 6407 / 568 3892	
	e-mail: <a href="mailto:zafar12@super.net.pk">zafar12@super.net.pk</a>	
<b>SRI LANKA</b>	Capt. P.N. Senanayake	Mr. Ajith Wickrama Seneviratne
	Deputy Director of Merchant Shipping (Navigation)	Government Engineer & Ship Surveyor, Examiner of Engineers
	Ministry of Ports Development & Shipping, Merchant Shipping Division	Ministry of Ports Development & Shipping, Merchant Shipping Division
	43 -89, 1 <sup>st</sup> Floor, Bristol Building, York Street	43 -89, 1 <sup>st</sup> Floor, Bristol Building, York Street
	Colombo 1, Sri Lanka	Colombo 1, Sri Lanka
	Tel: (941) 380 764 / (94) 722 408 525	Tel: (941) 435 127/388 376
	Fax: (941) 380 764/435 160/441 429	Fax: (941) 435 160/441 429
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## Annex II



### IMO REGIONAL TRAINING COURSE FOR SOUTH ASEAN SEA STATES NATIONAL IMPLEMENTATION AND ENFORCEMENT OF MARPO73/78

**30 June – 4 July 2003, COLOMBO, SRI LANKA**

<b>LECTURERS:</b>		
<b>Mr. Henning Menzel</b>	Consultant to IMO.	HM
<b>Ms. Tatjana Olson</b>	Consultant to IMO	TO
<b>Mr. Josef Schüsslburner</b>	Consultant to IMO	JS
<b>Mr. John Østergaard</b>	International Maritime Organization, London, U.K.	IMO

### COURSE PROGRAMME

<b>Monday</b>	<b>30 June 2003</b>	
09:00-10:00	Opening Ceremony - Hon.Rukman Senanayake, Minister of Environment & Natural Resources of Sri Lanka - International Maritime Organization.	IMO
10:00-10:30	<b>Break/Coffee</b>	
10:30-11:00	Course introduction and <i>Distribution of Course Materials</i>	IMO
11:00-12:30	Presentation of each participating State on its status*) concerning MARPOL ; including questions and answers	Max. 15 minutes per State
12:30-13:30	<b>Lunch</b>	Facility
13:30-15:30	Presentation of MARPOL 73/78 ( session1)	HM
15:30-16:00	<b>Break/Coffee</b>	Facility
16:00-17:00	Work of the Marine Environment Protection Committee of IMO (2)	HM
17:00	<b>End of day one</b>	

<b>Tuesday</b>	<b>1 July 2003</b>	
09:00-10:30	National implementation of MARPOL (3)	TO
10:30-11:00	<b>Break/Coffee</b>	Facility
11:00-12:30	National legal framework necessary to implement MARPOL (4)	JS
12:30-13:30	<b>Lunch</b>	Facility
13:30-14:30	Documentation and examples on MARPOL compliance (5)	TO
14:30-15:30	Reporting under MARPOL (6)	IMO
15:30-16:00	<b>Break/Coffee</b>	Facility
16:00-17:00	Optional session by a local lecturer	?????
17:00	<b>End of day 2</b>	
<b>Wednesday</b>	<b>2 July 2003</b>	
09:00-10:30	How to respond to violations (7)	JS
10:30-11:00	<b>Break/Coffee</b>	Facility
11:00-12:30	Flag State and Port State Control (8)	<b>TO and JS</b>
12:30-13:30	<b>Lunch</b>	Facility
13:30-15:00	Role of Flag State Authority, National Register of Shipping and Classification societies (9)	HM
15:00-15:30	Evidence gathering and documentation (10)	IMO
15:30-16:00	<b>Break/Coffee</b>	Facility
16:00-17:00	Reception facilities in ports (11)	TO
17:00	<b>End of day 3</b>	

<b>Thursday</b>	<b>3 July 2003</b>	
09:00-10:30	Airborne Surveillance System (12)	HM
10:30-11:00	<b>Break/Coffee</b>	Facility
11:00-12:30	Other measures to protect the marine environment (13)	TO
12:30-13:30	<b>Lunch</b>	Facility
13:30-17:00	Field trip to the Port of Colombo organized by the hosts (according to special programme)	
17:00	<b>End of day 4</b>	
<b>Friday</b>	<b>4 July 2003</b>	
09:00-10:30	Regional co-operation on Oil Spill Response (14)	IMO
10:30-11:00	Development of Seminar recommendations	HM
11:00-11:30	<b>Break/Coffee</b>	Facility
11:30-12:30	Development of information on national status on the implementation of MARPOL 73/78	HM and Participants
12:30-13:30	<b>Lunch</b>	
13:30-14:00	Course review and evaluation	All
14:00-15:00	Course Certificates, Course closure: - IMO; - Ministry of Environment & Natural Resources	IMO and .....
15:00	<b>End of Course</b>	

**\*<sup>y</sup> From page 1:      Presentation on the status concerning MARPOL in each of the States:**

A representative of each participating State is invited to prepare a short presentation on the national status concerning MARPOL ratification, implementation and enforcement in her/his Country. The presentation might cover the following items, but is not limited to do so:

1. Status concerning ratification of MARPOL 73/78.
2. Responsible National Administration, including Responsible Ministry and organization.
3. Responsibilities in Ports, Role of Harbour Master/Captain in relation to control and enforcement and ownership of ports.
4. Relationship between "MARPOL Enforcement" and National Oil Spill Response Organization.
5. Facilities in ports (fixed or mobile) for the reception of ship generated wastes including: Oily wastes, bulk chemicals, sewage, garbage and MARPOL Annex VI wastes.
6. Any other matters, relevant to the Course Programme.

## ANNEX III



### LIST OF RESPONSIBLE ADMINISTRATIONS IN THE SOUTH ASEAN SEA STATES

Contact addresses of responsible national authorities concerning  
implementation and enforcement of MARPOL 73/78  
and oil spill response

#### INDIA

Competent Administration/Services with competency in the field of

- a) **implementation.....**  
**name and address .....**

Title	Chief Surveyor with Government of India	
Address	The Directorate General of Shipping Jahag Bhavan, Ballard Estate Mumbai-400 706 India	
Telephone:	91-22-226136651	
E-mail	<a href="mailto:cs@dgshipping.com">cs@dgshipping.com</a>	
Telefax:	91-22-22613655	
Work Hours	09.30 to 18.00 week day	
Name of contact person	Mr A Chatterjee	

- b) **enforcement...(if different...).....**  
**name and address**

Title	Chief Surveyor with Government of India & nautical Adviser to the Government of India	
Address	Same as above	
Telephone	91-22-22670863 & 91-22-22613651	
E-mail	<a href="mailto:cs@dgshipping.com">cs@dgshipping.com</a> , <a href="mailto:saggi@dgshipping.com">saggi@dgshipping.com</a>	
Telefax	91-22-22613655	
Work Hours	09.30 to 18.00	
Contact person	Mr A. Chatterjee & Capt. M.M. Saggi	

**c) Reception facilities in different ports and contact addresses**

Name of port:				
Annex I	Annex II	Annex IV	Annex V	Annex VI
Title : Address:  Tel: e-mail: Working hours: Remarks:				
<b>d) National Authority responsible for oil spill response</b> Title: Address:..... Tel: e-mail: Remarks:.....				



**MALDIVES**

Competent Administration/Services with competency in the field of

- a) **implementation.....**  
**name and address .....**

Title	<b>Note:</b> <b>The Maldives are not a member State of MARPOL73/78 yet, as such they are not able to provide contact addresses.</b>	
Address.		
Telephone:		
E-mail		
Telefax:		
Work Hours		
Name of contact person		

- b) **enforcement...(if different...).....**  
**name and address**

Title	<b>Same as above</b>	
Address		
Telephone		
E-mail		
Telefax		
Work Hours		
Contact person		

- c) **Reception facilities in different ports and contact addresses**

Name of port: Male`Maldives				
Annex I	Annex II	Annex IV	Annex V	Annex VI
Title: Maldives port Authority /Ministry of Transport and Aviation				
Address: Bodutahkurufaanu Magu				
Male Maldives				

Tel: (960)32 93 39

Fax: (960)328624

e-mail: prsnl@maldport.com.mv

Working hours: 24 hrs

Remarks: Officially Maldives Ports Authority does not provide reception facilities; but reception facilities for Annex I can be provided on masters request at any time

**d) National Authority responsible for oil spill response**

Title:

Address:.....

Tel:

e-mail :

**PAKISTAN**

Competent Administration/Services with competency in the field of

**a) implementation.....  
name and address .....**

Title:	Ministry of Communications, Ports and Shipping Wing	
Address:	Plot No.12,Mai kolachi Bye Pass Karachi-74200	
Telephone:	92-21-9206405, 92-21-9296406	
E-mail :	-----	
Telefax:	92-21-9206407	
Work Hours:	Week days 08.00 to 15.00 hrs Fridays 08.00-12.00 hrs	
Name of contact person:	Director General	

**b) enforcement...(if different...).....  
name and address**

Title	Mercantile Marine Department	
Address	Ministry of Communications, Ports and Shipping Wing, Timber Pond keamari Karachi-Pakistan	
Telephone	0092-21-2852703,2852704	
E-mail	-----	
Telefax	-----	
Work Hours	Week days 08.00 to 18.00 hrs Fridays 08.00 to 12.00 hrs	
Contact person	Principal Officer	

**c) Reception facilities in different ports and contact addresses**

Name of port: Karachi

Annex I	Annex II	Annex IV	Annex V	Annex VI
Yes	Nil	Nil	Yes	Nil

Name and address

Title : Marine Pollution Control Centre (MPCC)  
 Address: GM. Operation, Head Office Building, Edulji Dinshaw Road, Karachi Port Trust, Karachi.  
 Tel: 0092-21-2853750  
 E-mail: mskpt@hotmail.com  
 Telefax:  
 Working hours: Week days 08:00 to 17:00hrs, Fridays 08:00-12:00 hrs  
 Name of contact person: Manager (MPCC) Mr. R.Y. Usmani

Name of port: Port Muhammad Bin Quasim

Annex I	Annex II	Annex IV	Annex V	Annex VI
Yes	Nil	Developing	Yes	Nil

Name and address

Title: Marine Pollution Control Center.  
 Address: Environment and Safety Department Port Qasim Authority, Bin Qasim Karachi  
 Tel: 0092-201-9204211 Ext:4202 & 4203.  
 E-mail: [secy\\_pqa@khi.comsats.net.pk](mailto:secy_pqa@khi.comsats.net.pk)  
 Telefax: 0092-201-730108  
 Working hours: Week days 08:00 to 15:00 hrs, Fridays 08:00-12:00 hrs  
 Name of contact person: Mr. Afsar Din Talpur D.G.M (MPCC) PQA

**d) National Authority responsible for oil spill response**

Title : Maritime Security Agency (MSA)  
 Address: KDLB building Mereweather Tower, West wharf Road, Karachi  
 Tel: 0092-21-9214619, 9214620  
 e-mail:  
 Telefax: 0092-21-9214625, 9214621  
 Working hours:  
 Name of contact person: Director General MSA.

**SRI LANKA**

Competent Administration/Services with competency in the field of

- a) **implementation.....**  
**name and address .....**

Title	Merchant Shipping Division Ministry of Ports Development & Shipping	Marine Pollution Prevention Authority (MPPA)
Address	43-89, 1 <sup>st</sup> Floor, Bristol Building, York Street Colombo 1	11-C Tower Building Colombo 4
Telephone:	(941) 441293/441294	(941) 075 333 496
E-mail	<a href="mailto:dmsmos@sltnet.lk">dmsmos@sltnet.lk</a>	<a href="mailto:mppaslk@lanka.com.lk">mppaslk@lanka.com.lk</a>
Telefax:	(941) 435 160/380764	(941) 553197
Work Hours	8.00 hrs- 17.00 hrs	
Name of contact person	Abeyrathne Banda	

- b) **enforcement...(if different...).....**  
**name and address**

Title	Merchant Shipping Division Ministry of Ports	Merchant Shipping Division
Address	Development & Shipping 43-89, 1 <sup>st</sup> Floor, Bristol Building York Street Colombo 1	
Telephone	(941) 435 127	
E-mail	<a href="mailto:dmsmos@sltnet.lk">dmsmos@sltnet.lk</a>	
Telefax	(941) 435 160 / 4414 29	
Work Hours	8.00Hrs—17.00 Hrs	
Contact person	Director of Merchant Shipping	

**c) Reception facilities in different ports and contact addresses**

Name of port: <b>Colombo</b>				
Annex I	Annex II	Annex IV	Annex V	Annex VI
X	X	/	/	/
Name and Address: Sri Lanka Ports Authority 45, Leyden Bastion Road, Colombo 01				
Tel: (941) 421 201      Contact Person: Harbour Master (941) 422674				
<b>d) National Authority responsible for oil spill response:</b>				
Title: Marine Pollution Prevention Authority				
Address: same as above				
Telephone				
E-mail:				
Fax				

## APPENDIX

### IMO REGIONAL TRAINING COURSE FOR SOUTH ASEAN SEA STATES NATIONAL IMPLEMENTATION AND ENFORCEMENT OF MARPOL 73/78

**30 June – 4 July 2003, COLOMBO, SRI LANKA**

#### List of developed training materials

<b>LECTURES:</b>		
<b>Mr.Henning Menzel</b>	IMO Consultant	HM
<b>Ms.Tatjana Olson</b>	IMO Consultant	TO
<b>Mr.Josef Schüsslburner</b>	IMO Consultant	JS
<b>Mr.John Ostergaard</b>	IMO, UK	IMO

	Course introduction	IMO
Session 1	MARPOL presentation	HM
Session 2	Work of IMO's Marine Environment Protection Committee	HM
Session 3	National implementation of MARPOL	TO
Session 4	National legal framework necessary to implement MARPOL	JS
Session 5	Documentation and examples on MARPOL compliance	TO
	• IOPP Certificates	
Session 6	Reporting under MARPOL	IMO
Session 7	How to respond to MARPOL	JS
Session 8	Port State control	TO
Session 9	Role of flag State, national register of shipping and	HM
	Classification societies	
Session 10	Evidence gathering and documentation	IMO
Session 11	Reception facilities in ports	TO
Session 12	Airborne Surveillance systems	HM
Session 13	(Matters for the protection of the marine environment)	TO
	No. 13 Anti- Fouling systems, No. 14 Ballast water management,	
	No. 15 Special areas and PSSA's	
Session 14	Regional cooperation in the South Asean Sea Region	IMO





International Maritime Organization  
REGIONAL TRAINING COURSE,

**MARPOL**  
Implementation and Enforcement

FOR  
SOUTH ASIAN SEA COASTAL STATES

**WELCOME  
AND  
INTRODUCTION**

BY

**JOHN ØSTERGAARD**  
SENIOR ADVISER ON MARINE POLLUTION

INTERNATIONAL MARITIME ORGANIZATION

**COURSE OBJECTIVE**

TO PROVIDE IN-DEEP KNOWLEDGE ON  
NATIONAL AND REGIONAL  
IMPLEMENTATION AND ENFORCEMENT  
OF  
MARPOL 73/78

**COURSE OUTLINE (1)**

1. WELCOME
2. REVIEW OF COURSE
3. ROLES – INSTRUCTORS / PARTICIPANTS

**COURSE OUTLINE (Cont'..)**

4. DETAILED INTRODUCTIONS
5. STUDENTS EXPECTATIONS
6. COURSE MATERIALS
7. COURSE ADMINISTRATION AND ARRANGEMENTS

**REVIEW / PROGRAMME  
OF THE COURSE (1)**

1. PROGRAMME AS DISTRIBUTED WITH NECESSARY CHANGES
2. WORKING HOURS: 09:00 TO 17:00
3. MORNING COFFEE: 10:30 TO 11:00
4. LUNCH BREAK: 12:30 TO 13:30
5. AFTERNOON COFFEE: 15:30 TO 16:00

## ROLES OF INSTRUCTORS AND PARTICIPANTS

### INSTRUCTORS:

- TO PROVIDE LECTURES;
- ANSWER QUESTIONS TO FACILITATE A MAXIMUM LEARNING PROCESS ON ISSUES DISCUSSED;
- ANSWER QUESTIONS ON ANY OTHER ISSUE RELATED TO OIL SPILL RESPONSE; AND
- MAINTAIN A POSITIVE LEARNING ATMOSPHERE.

## ROLES OF INSTRUCTORS AND PARTICIPANTS

### PARTICIPANTS / STUDENTS:

- TO WORK HARD
- ASK QUESTIONS
- SHARE INFORMATION/ EXPERIENCES
- STICK TO THE TIME TABLE
- MAINTAIN A POSITIVE ATMOSPHERE
- ENJOY THE COURSE AND SHARE THE EXPERIENCES WITH YOUR COLLEAGUES BACK HOME.

## INSTRUCTORS / PARTICIPANTS INTRODUCTION

### INSTRUCTORS:

Ms. TATJANA OLSON – Consultant to IMO

Mr. HENNING MENZELL – Consultant to IMO

Mr. JOSEF SCHUSSELBURNE – Consultant to IMO

MR. JOHN ØSTERGAARD - IMO.

## INSTRUCTORS / PARTICIPANTS INTRODUCTION

### PARTICIPANTS / STUDENTS:

- NAME
- COUNTRY AND ADMINISTRATION/ORGANIZATION
- PRESENT JOB AND FUNCTION
- EXPECTATIONS FROM THE COURSE
- ANY OTHER INFORMATION.

## STATUS OF RATIFICATION OF MARPOL FOR THE SACEP REGION

COUNTRY	MARPOL ANNEX I	MARPOL ANNEX II	MARPOL ANNEX III	MARPOL ANNEX IV	MARPOL ANNEX V	MARPOL ANNEX VI
BANGLADESH	X	X	X	X	X	X
INDIA	X	X	0	0	0	0
MALDIVES	0	0	0	0	0	0
MYANMAR	X	0	0	0	0	0
PAKISTAN	X	X	X	X	X	0
SRI LANKA	X	X	X	X	X	0

## EXPECTATIONS OF THE COURSE

- THE NATIONAL IMPLEMENTATION AND ENFORCEMENT OF MARPOL 73/78 NEED TO HAVE ITS BASIS IN NATIONAL LEGISLATION.
- MARPOL IMPLEMENTATION IS A COMPLEX ISSUE, AS IT IS A COMBINATION OF SHIP BOARD TECHNOLOGY, COMBINED WITH ENVIRONMENTAL DISCHARGE REQUIREMENTS AND OTHER ISSUES.
- THE JOB OF NATIONAL ENFORCEMENT CAN NOT BE LEARNED ON A FIVE DAYS COURSE.
- EXPERIENCES FROM NATIONAL AND INTERNATIONAL IMPLEMENTATION AND ENFORCEMENT ARE NEEDED.

**PARTICIPANTS NEEDS /  
EXPECTATIONS OF THE COURSE**

THE PURPOSE OF THE COURSE IS NOT TO TEST  
OR EXAMIN YOUR QUALIFICATIONS OR  
NATIONAL STATUS OF IMPLEMENTATION.

THE PURPOSE IS TO PROVIDE YOU ALL WITH AS  
MUCH KNOWLEDGE AS POSSIBLE ON THE  
IMPLEMENTATION AND ENFORCEMENT OF  
MARPOL TO ENSURE THAT YOUR COUNTRY IN  
THE FUTURE IS CONSIDERED AS ONE OF THE  
"MEMBERS OF THE CLUB".

**PARTICIPANTS NEEDS /  
EXPECTATIONS OF THE COURSE**

THE MAXIMUM OUTPUT AND GAIN  
FROM THIS COURSE CAN ONLY BE  
ACHIEVED WITH YOUR POSITIVE  
CO-OPERATION.

**COURSE MATERIALS AND  
DOCUMENTATION**

ALL MATERIALS HANDED OUT ARE  
FREE OF CHARGE.

IT IS INTEND TO BE USED AS FUTURE  
REFERENCES AND BACKGROUND  
INFORMATION IN CONNECTION WITH YOU  
OWN OR YOUR ADMINISTRATION'S WORK  
ON IMPLEMENTATION AND ENFORCEMENT.  
THE MATERIALS REPRESENT THE LATEST  
DEVELOPMENTS WITHIN IMO IN RESPECT  
OF THE ISSUES IT COVERS.

**COURSE ADMINISTRATION**

COURSE CERTIFICATES ON FRIDAY.

FILL IN THE REGISTRATION FORM,  
INCLUDING DETAILS ON DEPARTURE  
FLIGHT AND NEED FOR  
TRANSPORTATION TO AIRPORT.

ENJOY THE COURSE, AND ASK IF YOU  
HAVE ANY PROBLEMS.



## **EVIDENCE GATHERING & DOCUMENTATION**

**JOHN ØSTERGAARD**

SENIOR ADVISER ON MARINE POLLUTION

INTERNATIONAL MARITIME ORGANIZATION

## **STEPS IN EVIDENCE GATHERING**

1. RECEIVED REPORT OF A SPILL IN VIOLATION OF NATIONAL OR INTERNATIONAL REQUIREMENTS.
2. ASSESS THE SITUATION
3. ACTIVATE THE NATIONAL CONTINGENCY PLAN (as appropriate)
4. CONSIDER GATHERING OF EVIDENCES
5. PREPARE DOCUMENTATION FOR NATIONAL COURT CASE OR FOR SUBMISSION TO SHIP'S FLAG STATE
6. REPORT AS APPROPRIATE.

## **RECEIVED REPORT OF A SPILL**

### **SOURCES OF SPILL REPORTS**

- From the master of ship who have caused a spill or from a ship that have observed a spill
- From coastal radio stations
- From air traffic control centres
- From a harbour master
- From the police
- From the public
- From any other source

## **ACTIVATE THE NATIONAL CONTINGENCY PLAN (as appropriate)**

- Is the reported spill so serious that it need any kind of response at local or national level.
- If yes, activate what ever contingency is necessary
- Consider the legal aspects of the spill, is it a spill in violation of national or international discharge criteria?

## **CONSIDER GATHERING OF EVIDENCES**

Where has the spill taken place?

- In port or terminal?
  - from a ship or from land based source
- Inside the territorial sea
- Outside the territorial sea or EZ

## **CONSIDER GATHERING OF EVIDENCES**

Where has the spill taken place?


In port or terminal?  
from a ship or from land based source?

Investigate and gather evidences with assistance from Maritime Authorities and the Police





MARPOL-WORKSHOP; Session 1 Colombo, 30 June – 4 July 2003




## Regional Workshop on National MARPOL 73/78 Implementation and Enforcement

### Presentation of MARPOL 73/78 Session 1

Sponsored by the International Maritime Organization

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### Table of Contents (1):

- Introduction
- Structure and components of MARPOL 73/78
  - Protocol I and Protocol II
  - Articles and Annexes
- Status of MARPOL 73/78 for the East Asian Sea countries
- Obligations, privileges and benefits of MARPOL 73/78
- Annex I (Prevention of Pollution by Oil)
  - Special area concept
  - Double bottom / double hull/ Existing Ships

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### Table of Contents (2):

- Annex II (Pollution by Noxious Liquid Substances)
- Annex III (Harmful Substances carried by sea in packed Forms)
- Annex IV (prevention of pollution by Sewage)
- Annex V (prevention of pollution by Garbage )
- Annex VI (prevention of air pollution from Ships )

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### Introduction:

MARPOL = Convention for the Prevention of Pollution from Ships

Signed at an International Conference in 1973 → MARPOL 73 together with Protocol I (Reports on Incidents involving Harmful Substances) and Protocol II ( Arbitration)


Modified in 1978 after the accident of the AMOCO Cadiz → MARPOL 73/78

Entered into force (Oil) on 2 October 1983 and updated by amendments through the years

96% of the total world fleet is included as Parties of MARPOL

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### Structure and components of MARPOL 73/78

Structure of MARPOL 73/78


- legal instrument composed of various documents;
- laid down in 20 articles and 6 annexes.

MARPOL (Article 14) provides that

- Annexes I and II are mandatory for parties to the treaty
- vs. Annexes III, IV, V and VI, which are optional annexes and not binding unless the party has specifically accepted those Annexes.

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### Annexes of MARPOL 73/78

Different types of ship-generated pollution are contained in the 6 Annexes regarding:

Annex	Subject	Entry Into Force
I	Oil	2 October 1983
II	Noxious liquids carried in bulk	6 April 1987
III	Harmful substances carried in packaged form	1 Juli 1992
IV	Sewage from ships	will enter into force on 27 September 2003
V	Garbage from ships	31 December 1988
VI	Air pollution by ships	not yet in force

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Country	Annex I/II	Annex III	Annex IV	Annex V	Annex VI
Bangladesh	X	X	X	X	X
India	X				
Maldives					
Pakistan	X	X	X	X	
Sri Lanka	X	X	X	X	

X := ratified    := not ratified

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Subjects and regulations of MARPOL 73/78

MARPOL 73/78 covers two main subjects

- the special construction and equipment rules for the prevention of accidental pollution by ships;
- the circumstances in which discharges into the sea are authorised.

The main regulations of MARPOL 73/78 are

- general rights and obligations,
- violations,
- rules on inspection of ships,
- reporting on incidents,
- communication of information,
- amendment procedure.

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Obligations of MARPOL 73/78

Implementation and enforcement of the objectives of the Convention in respect of

- own flag ships
- other flag ships in own waters

Other MARPOL requirements:

- Not to discharge wastes into the sea
- Installation of a basic marine administration
- Legal requirements
- Requirements of each Annex of MARPOL
- Delegation of duties to national authorities / organizations

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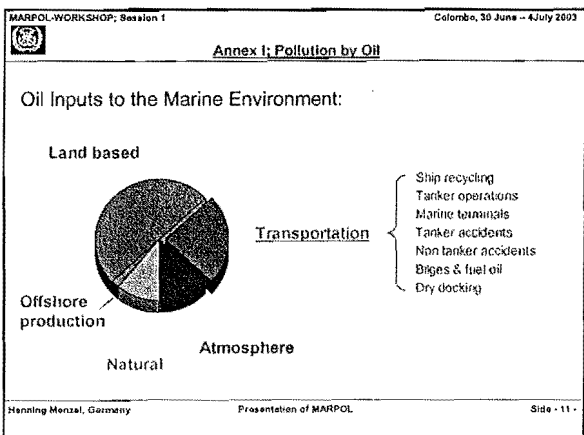
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Privileges and benefits of MARPOL 73/78

Privilege: Not being polluted by other parties – and if you are and the pollution occurs within your own territorial waters, you can prosecute.

Benefits: To the shipowners of your country (world wide acceptance of their ships).  
To the ports of your country (means to control pollution).

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Annex I: Pollution by Oil

Annex I Regulations for the Prevention of Pollution by Oil

Chapter I ( General)

- surveys of ships
- issue or endorsement of certificates
- Port State control on operational requirements

Chapter II (Requirements for control of operational pollution)

- control of discharge of oil
- reception facilities
- Oil Record Book
- equipment and structural standards

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**Annex I: Pollution by Oil**

Chapter III (Requirements for minimizing oil pollution from oil tankers due to side and bottom damages),

- e.g. limitation of size and arrangement of cargo tanks

Chapter IV (prevention of pollution arising from an oil pollution incident.)

- Shipboard oil pollution emergency plan (SOPEP)

Appendix II shows form of International Oil Pollution Prevention Certificate (IOPP).

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**Annex I: Pollution by Oil**

Chapter II; Regulation 9:

The control of operational discharges of oil depends of

- type and the size of ships (for an oil tanker there are special provisions)
- whether the ship is proceeding en route and
- the ship is inside or outside a special area.

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**Discharges of oil / water mixtures**

Status, July 1998

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Chapter II; Regulation 13 F:

New regulation; it applies to new oil tankers<sup>1</sup> of 600 dwt and above.

- double bottom for tankers up to 5000 dwt
- double hull for tankers above 5000 dwt

<sup>1</sup>building contract after July 1993; keel-laying after 6 January 1994; delivery after 6 July 1996 or major conversion

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**Annex I: Pollution by Oil**

Chapter II; Regulation 13 G:

new Regulation was included: the life of an oil tanker is limited - not older than 30 years after delivery.

After ERIKA incident (December 1999):

13 G was amended to accelerate the phase-out of single hull oil tankers.

After PRESTIGE incident (November 2002):

A further acceleration of the phase-out time of single hull oil tankers is demanded.

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**Annex I: Pollution by Oil**

Proposed Amendments to Annex I of MARPOL 73/78


Proposals by the member States of the EU to amend Regulation 13

These proposals are aiming at:

- accelerating the phasing-in of double hull for single hull oil-tankers
- banning the transport of heavy grades of oil by single hull oil-tankers; and broadening the application of the special inspection regime for oil-tankers

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 **Annex I: Pollution by Oil**


Chapter II; Regulation 10:  
The "**special areas**" are considered to be so vulnerable to pollution by oil that oil discharges within them have been completely prohibited, with minor and well-defined exceptions.

Special areas for Annex I are:

- Mediterranean Sea
- Baltic Sea
- Black Sea
- Red Sea
- Gulfs Area, Gulf of Aden area, Antarctic area and North-West European Waters

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 **Annex II: Pollution by Noxious Liquid Substances**


Annex II applies to the carriage in bulk of all liquid substances except oil.

Regulation 3; Listing and Categorization:  
Substances posing a threat of harm to the marine environment are divided into four categories (A, B, C and D):

- Category A substances are those with the greatest threat to the marine environment
- Category D substances are those posing the least threat.

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 **Annex II: Pollution by Noxious Liquid Substances**


Regulation 5; Discharge of noxious liquid substances

- The discharge into the sea is prohibited except when it is made under conditions which are specified for each category.
- The discharge criteria are dependent on the distance from the nearest coast and whether the ship is outside or inside of special areas.

For special areas (Baltic Sea, Black Sea and Antarctica) more stringent discharge criteria are given.

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 **Annex II: Pollution by Noxious Liquid Substances**

Regulation 5A; Pumping, piping and unloading arrangements:  
Every ship is provided with pumping and piping arrangements to ensure that a tank does not retain, after unloading, a quantity of residues (Cat. B and C) in excess of the quantity given in the Annex II.

Regulation 9; Cargo Record Book:  
The Cargo Record Book shall be completed on a tank-to-tank basis whenever a specified operation with the cargo is carried out.

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 **Annex III: Pollution by Harmful Substances in packed forms**


Annex III applies to all ships to which MARPOL applies and which carry harmful substances in packed form.

Harmful substances are those identified as marine pollutants in the **International Dangerous Goods Code (IMDG Code)**.

Annex III makes reference to the IMDG Code for detailed requirements on the carriage of harmful substances.

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 **Annex IV: Pollution by Sewage from ships**

Annex IV (Prevention of pollution by Sewage from Ships) was elaborated at the same time as MARPOL Convention.

The entering into force is pending after 30 years.


During the last years the Annex has been modified to be easier to adopt.

The main change is related to the application for ships engaged in international voyages.

The modified version of Annex IV will enter into force on 27 September 2003

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 **Annex IV; Pollution by Sewage from ships**

**Regulation 2; Application:**

1. new ships of 400 grt and above - on or after the date of entry into force
2. new ships of less than 400 grt that are certified to carry more than 15 persons
3. existing ships of 400 grt and above, five years after the date of entry into force of this Annex
4. existing ships of less than 400 grt and with more than 15 persons on board, five years later

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 **Annex IV; Pollution by Sewage from ships**

**Regulation 4; Survey:**  
Every ship shall be subject to surveys (Initial survey, renewal and additional survey)

**Regulation 5 to 8; Certificate, Form and Duration:**  
Issue of International Sewage Pollution Prevention Certificate (ISPP) for ships engaged in international voyages.

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 **Annex IV; Pollution by Sewage from ships**

**Regulation 9:**

- Sewage systems (treatment plant, sewage comminuting and disinfection, holding tank).

**Regulation 11:**


- The discharge of sewage into the sea is prohibited with several exceptions.

**Regulation 12:**

- Requirement to provide reception facilities at ports and terminals.

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 **Annex V; Pollution by Garbage from ships**


Annex V applies to all ships, including yachts, fishing vessels, and offshore platforms.

It addresses discharge from ships and do not stipulate equipment requirements.

It requires every ship from a specified size and persons on board to have in place a **garbage management plan** in the working language of the crew and a **Garbage Record Book**.

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 **Annex V; Pollution by Garbage from ships**

The discharge of garbage into the sea is prohibited or restricted.

The disposal of any plastic garbage into the sea, including synthetic fishing nets, is prohibited everywhere.

There are special provisions for dunnage, packing material and food wastes.


Each garbage discharge must be duly recorded.

In addition it is required to display placards showing the disposal requirements.

Provision of reception facilities at ports and terminals.

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 **Annex V; Pollution by Garbage from ships**

In **Special Areas** the disposal of any garbage other than food wastes into the sea is prohibited; Food wastes can only be disposed off at sea far away from land.

There are at present eight **Special Areas**:

- Mediterranean Sea
- Black Sea
- North Sea Area and Baltic Sea
- Red Sea
- Gulf Area
- Antarctic Area
- Wider Caribbean Region

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**ANNEX VI Prevention of Air Pollution from ships**

New approach necessary: „old MARPOL“ concentrated on measures to prevent or minimize discharges from ships into the sea

Emissions from shipping pollute the marine environment too

Studies showed that emissions from Sulphur Oxides (SOx) and Nitrogen oxides (NOx) damage the marine environment

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**Annex VI: Air Pollution from ships**

Montreal Protocol of 1987 on reduction of the ozone layer puts the year 2000 as target year to prohibit the use of Halon and ozone-depleting substances

IMO Assembly Resolution in 1991 requires Governments to prohibit:

- the use of ozone-depleting substances on specified ships
- the use of Halons in fire distinguishing systems on board
- the mixture of chemical wastes in fuel oil from 1 January 1992

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**Annex VI: Air Pollution from ships**

At the Air pollution Conference, 1997, a Protocol with the new Annex VI of MARPOL was adopted.

The regulations in this annex, will set limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibit deliberate emissions of ozone depleting substances.

Annex VI has been ratified by 10 States (31 May) and a number of States have indicated that their ratification procedure is on the way.

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**Annex VI: Air Pollution from ships**

The main content of the Annex VI:

**Regulation 12:**  
The emission of Ozone-depleting substances is prohibited (e.g. Halons, chlorinated hydrocarbons)

**Regulation 13:**  
Nitrogen oxides (NOx) emissions from ship's diesel engines (more than 130 kW; constructed on or after 1 January 2000) is prohibited, except when in accordance with defined limits as shown in this Regulation

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**Annex VI: Air Pollution from ships**

**Regulation 14, Sulphur oxides(SOx):**  
The sulphur content of any fuel oil used on board ships shall not exceed 4,5% m/m.  
When operating in SOx emission control areas special conditions shall be fulfilled, e.g. the sulphur content of fuel oil used on board ships does not exceed 1,5% m/m.

**Regulation 15, Volatile organic compounds (VOCs):**  
The emissions of VOCs from tankers (gas carriers) are to be regulated in ports or terminals.

Henning Menzel, Germany      Presentation of MARPOL      Side - 35 -

MARPOL-WORKSHOP; Session 1  
Colombo, 30 June – 4 July 2003

**Annex VI: Air Pollution from ships**

**Regulation 16; shipboard incineration:**  
Shipboard incineration of special substances shall be prohibited.

**Regulation 17; Reception facilities:**  
The Party ensures the provision of adequate reception facilities in repair ports for the reception of ozone-depleting substances and equipment containing such substances.

**Regulation 18; Fuel oil quality:**  
Fuel oil for combustion purposes shall meet specific requirements.

Henning Menzel, Germany      Presentation of MARPOL      Side - 36 -



MARPOL 73/78 is a never ending story

New developments are to be expected.


- Ballast water management
- Recycling of ships

THE END --THANK YOU





MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003




## Regional Workshop on National MARPOL 73/78 Implementation and Enforcement

### Work of the MEPC (Marine Environment Protection Committee) Session 2

Sponsored by the International Maritime Organization

Henning Menzel, Germany Work of MEPC Slide - 1 -

MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003



Introduction:

### The Marine Environment Protection Committee (MEPC)


- is the IMO Committee
- that deals with MARPOL 73/78

### Results of the MEPC

- are far-reaching multilateral agreements at IMO
- dealing with the prevention of pollution from ships

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003




### Main issues that were undertaken by the MEPC in the last years

- Harmful Aquatic Organisms in Ballast Water
- Harmful Effects of the use of Anti-fouling Paints for Ships
- Recycling of Ships
- Air Pollution from Ships
- Particularly Sensitive Sea Areas (PSSA)
- Implementation of the OPRC Convention
- Greenhouse gas emissions from Ships
- Shipboard Oil Pollution Emergency Plan (SOPEP)

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003



### Harmful Aquatic Organisms in Ballast Water

One of the greatest threats to the world's oceans:

- Introduction of harmful aquatic organisms into other sea areas

Discussion in MEPC since many years.


Guidelines, research into possible solutions and treatment options have been made.

Further steps are an issue for MSC\*/MEPC Circular on safety aspects of ships.

\* Maritime Safety Committee (MSC). It is the highest technical body of the IMO

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003




### Harmful Aquatic Organisms in Ballast Water

Guidelines, research and treatment options:

- Rules for exchange of ballast water on the high sea
- Establishment of ballast water Discharge control areas near the coasts
- Provision of reception or treatment facilities for Ballast Water in ports
- Japan's recent proposal to improve technical design of ships to make ballastwater exchange redundant

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003




### Harmful Aquatic Organisms in Ballast Water

An intersessional meeting of the MEPC-Ballast Water Working Group produced a **Draft International Convention for the Control and Management of Ships' Ballast Water and Sediments** for discussion at MEPC 49

Date for a diplomatic Conference on Ballast Water Management is scheduled early 2004.

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MARPOL-WORKSHOP; Session 2  
Colombo, 30 June - 4 July 2003

 **Harmful Effects of the use of Anti-fouling Paints for Ships**

"Anti-fouling system" means a coating, paint surface treatment that is used on a ship to control or prevent attachment of unwanted organism.


International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001 (AFS Convention) aiming to enter into force at 1 January 2003.

The AFS Convention prohibits the application of any organotin compound acting as biocide.

Currently only 2 States have ratified AFS Convention.

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MARPOL-WORKSHOP; Session 2  
Colombo, 30 June - 4 July 2003

 **Harmful Effects of the use of Anti-fouling Paints for Ships**


The European Union is very much interested to prohibit as soon as possible the use of Anti-Fouling Systems mainly based on TBT (triorganotin compounds) acting as biocides.

MEPC (48) adopted Resolution MEPC.102(48) "Guidelines for Survey and Certification of Anti-Fouling Systems on Ships"

The Guidelines provide the procedures for survey to ensure that a ship's Anti-Fouling System complies with the AFS Convention

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Colombo, 30 June - 4 July 2003

 **Recycling of Ships**


General agreement at MEPC that IMO has an important role to play in reducing the safety and environmental risks associated with recycling of ships.

Different views concerning the question of development of a legally binding instrument.

MEPC agreed to re-establish the Working Group on Ship Recycling to continue to draft a Assembly Resolution on ship recycling and to develop IMO Guidelines for Ship Recycling.

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MARPOL-WORKSHOP; Session 2  
Colombo, 30 June - 4 July 2003


 **Recycling of Ships**

The Guidelines will reflect

- Safety issues on the last voyage of the ship
- Implications of Ballast Water
- Criteria for recycling yard selection
- Ownership responsibility towards the end of the ship's life
- What about deliberately abandoned ships in poor condition and the insurance for those ships
- The necessity of reception facilities in the vicinity of ship recycling yards - under MARPOL there is no such requirement

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MARPOL-WORKSHOP; Session 2  
Colombo, 30 June - 4 July 2003

 **Air Pollution from Ships**

At the Air pollution Conference, 1997, a Protocol with the new Annex VI of MARPOL was adopted.


Last Assembly urged Member Governments to ratify Annex VI as soon as possible

Annex VI has been ratified by 10 States (31 May) and a number of States have indicated that their ratification procedure is under way

Entry into force conditions for Annex VI might be satisfied mid 2003 and it would enter into force before mid 2004

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MARPOL-WORKSHOP; Session 2  
Colombo, 30 June - 4 July 2003

 **Particularly Sensitive Sea Areas (PSSA)**


MEPC had developed and approved Guidelines for Identification and Designation of PSSA during the past.

A MEPC Circular "Guidance Document for Submission of PSSA Proposals to IMO" was prepared by the Secretariat.

MEPC 47 agreed that certain modifications should be made to it and it would be useful to appendix to the document a framework of what needs to be included in a proposal for a new PSSA.

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003

 Implementation of the OPRC Convention


Implementation of the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC Convention, 1990)

OPRC Convention, 1990 entered into force 13 May 1995

Status of ratification of the South Asian Sea States;  
India and Pakistan have ratified OPRC Convention

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003

 Implementation of the OPRC Convention


OPRC is considered as an important tool for national responds to oil pollution incident.

Work is carried out in the OPRC Working Group, a Standing Working Group of MEPC, that met in the week prior to MEPC 48

MEPC agreed that HNS matters should be added to the Terms of Reference of the OPRC Working Group.

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 Implementation of the OPRC Convention

MEPC approved the work by the OPRC Working Group:


Revision of the Manual on Oil Pollution; Section IV - Combating Oil Spills

Ongoing work on Manual on Chemical pollution - Section 2:

Search and Recovery of Packed Goods Lost at Sea

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 Greenhouse gas emissions from Ships

Discussion on the merit of developing emission standards on greenhouse gas emissions from ships.

As a means to facilitate the implementation of the Kyoto Protocol (United Nations Framework Convention on Climate Change-UNFCCC ) to limit or reduce greenhouse gas emissions from ships.

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003


 Greenhouse gas emissions from Ships

In the discussion it was stated

- that only the developed countries should assume full obligation to reduce and limit greenhouse gas emissions from international shipping
- and the developing countries shall undertake no obligation on the limitation or reduction of emissions of greenhouse gases from ships
- the discussion will continue in the Air Pollution Working Group

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MARPOL-WORKSHOP; Session 2 Colombo, 30 June - 4 July 2003


 Shipboard Oil Pollution Emergency Plan-SOPEP

Plan to inform Master of each ship about reactions to be undertaken in case of an oil spill

- To be tailored to the respective ship
- To be approved on behalf of the flag State
- Forming an integral part of the IOPP Certificate
- Compulsary for all ships > 400 GRT (Tankers >150GRT)

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 **Shipboard Marine Pollution Emergency Plan (SMPEP)**

- Compulsory from 1 January 2003 for all ships above 150GRT certified to carry NLS
- Shipboard Marine Pollution Emergency Plan for noxious liquid substances + SOPEP
- Combiplan „SMPEP“ including requirements for SOPEP and for „SMPEP for NLS“ (recommended by IMO and GL)

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 **Shipboard Marine Pollution Emergency Plan (SMPEP)**


These Guidelines comprise three primary sections:

Introduction:

1. Mandatory provisions
2. There are mandatory provisions, i.e.:
  - Kind of Information given by the ship to the nearest coastal State on the actual or probable discharges
  - List of persons to be contacted
  - Steps to control discharge
3. Non-mandatory provisions  
Guidance concerning information required by local authorities.

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 **Report of Sub-Committees**

**Sub-Committee on Flag State Implementation (FSI)**


FSI is the Sub-Committee of both MSC and MEPC

FSI assists States in effective implementation of IMO Conventions on ships which fly their flags

Responsibility of flag States;  
when ratifying IMO Conventions they become part of the flag States own national law and they thereby agree to enforce them

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 **Sub-Committee on Flag State Implementation (FSI)**


FSI held its 11th session from 7 to 11 April 2003

No participants of the countries attending this seminar

Points of interest:  
Draft Flag State Implementation Code  
Self-assessment of flag State performance  
Ship recycling-related matters

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 **Cost Savings from Non-Compliance with intern.Regulations**


OECD Study (INF Paper for MEPC 49)

Approx. 10-15% of the world fleet (88 000 vessels) are in full contravention of IMO's environmental regulations; Potentially 5000 to 7500 substandard vessels

By not complying with the environmental Regulations they lower operating costs. Substandard operators can undercut quality shipping

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 **OECD study on cost savings**

Identifying the costs avoided by non-compliance with international environmental regulations is difficult  
It does not directly endanger ship, crew or cargo

„First order“costs: capital, maintenance, repair costs for environmental equipment and costs for disposing of residual wastes –up to 3,5 to 6.5% of the operating costs

Avoiding equipment maintenance-illegal dumping

Penalties too low- new environmental regulations(new costs)  
Dirty fuel ( accumulation of sludge/ reducing sludge production)

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## Work of IMO's MEPC

In this lecture the wide range of IMO's current work  
in the environmental field was demonstrated

Thank you for your attention





## Speaker

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## The Fate of Oil

### ❖ Flotation

Oils oscillate above and below the waters surface

Oils may sink or float

### ❖ Spreading and drifting

Spillage is governed by current and wind



## The Fate of Oil

### ❖ Dispersion

This process results from oil being forced below the water surface and being broken into droplets

### ❖ Dissolution

Soluble constituents of oil completely dissolve in the water



## The Fate of Oil

### ❖ Evaporation

**First 24-48 hours**

**3% - 24%**

### ❖ Emulsification

**Emulsions are stable**



## The Fate of Oil

### ❖ Sinking

The most significant problem presented by sunken oils – its transportability by currents, winds and wave action to nearby shorelines.

### ❖ Biodegradation

That is a “safety valve”. Biological breakdown. Natural breakdown.



## The Fate of Oil

**Exclusion:** PNA or PONA (poly nuclear aromatic compounds).

**Carcinogens:** evolve the growth of different tumours. Impact comes through the mechanism of inhalation of vapours, skin contact and ingestion (likely as a sea-food).



**SAITOPOLAR**  
1984 2000

### A Little History

- ❖ **1921** – Conference in London on Protection of Coastal Area from Pollution by Oil ,
- ❖ **1926** – International Conference in Washington on Protection of Pollution by Oil, and...
- ❖ **1954** – the OILPOL Convention, which recognized that most oil pollution resulted from routine shipboard operations

**SAITOPOLAR**  
1984 2000

### A Little History

- ❖ The world's **first oil tankers**- the late 19<sup>th</sup> century
- ❖ Second World War - **standard oil tanker** 16,400 tonnes deadweight,
- ❖ **1950s** and onwards – tankers grew in size
- ❖ **The first 100,000-tonne** crude oil tanker was delivered in **1959**.

**SAITOPOLAR**  
1984 2000

### A Little History

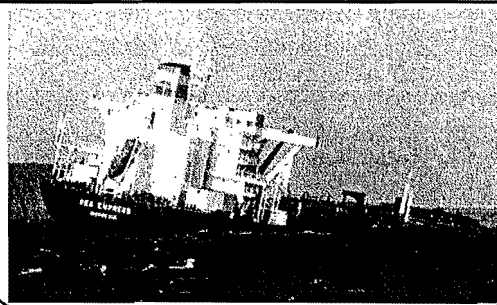
- ❖ **1967** – "Torrey Canyon". 120,000 tons of crude oil
- ❖ **1976** – "Argo Merchant". 27,000 tons of oil
- ❖ **1989** – "Exxon Valdez". 1,264,155 barrels of crude oil, 1/5 spilled

And unfortunately that is not the end!

**SAITOPOLAR**  
1984 2000

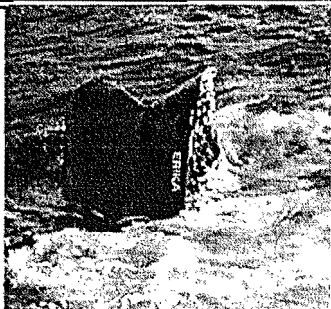
### M/T "Sea Empress"

Milford Haven



**SAITOPOLAR**  
1984 2000

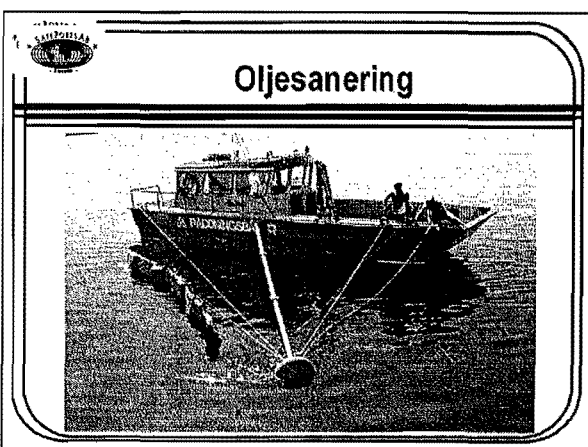
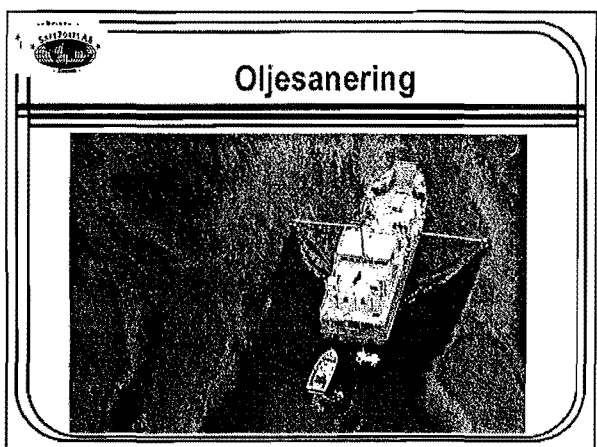
### M/T "Erika"



**SAITOPOLAR**  
1984 2000

### Utsläpp till vatten






**Actions in implementing**

1. Accede to MARPOL 73/78
2. Give effect to Annexes I and II
3. Give effect to Optional Annexes accepted or given force by national law
4. Prohibit violations
5. Provide sanctions
6. Take proceedings
7. Inform parties concerned
8. Inform IMO

**Actions in implementing**

9. Inspect ships
10. Monitor compliance
11. Avoid undue delay to ships
12. Report on incidents
13. Provide IMO with documents (Article 11)
14. Investigate casualties involving pollution and report findings
15. Ensure provisions of adequate Refacs




## MARPOL 73/78

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**Accession  
requires the participation of**

**Government of the State  
Administration - Legal  
Administration – Marine  
Shipowners  
Port authorities**




## MA organization

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**Administrative duties (short discription)**

1. IMO representation
2. Legislation
3. Regulations
4. Implementing of regulations
5. Instructions to surveyors
6. Delegation of survey, issue of certificates
7. Records of ship certification (flag State)
8. Design approval




## MA organization

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**Administrative duties (short discription)**

9. Survey reports
10. Equipment approval
11. Issue of certificates (design, survey, equipment)
12. Violation reports
13. Prosecution of offenders
14. Monitoring reception facilities
15. Informing IMO as required



## MARPOL 73/78

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**MARPOL 73/78 – A LEGAL INSTRUMENT**


**Obligations agreed by the parties**

29 (20) articles

4 (3) protocols

**Regulations for the prevention of different  
type of ship-generated pollution**

6 annexes




## MARPOL 73/78

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**Annex I Regulations for the Prevention of  
Pollution by Oil (Oct. 1983)**

**Annex II Regulations for the Control of  
Pollution by NLS in Bulk (Apr.1987)**

**Annex III Regulations for the Prevention of  
Pollution by Harmful Sub. Carried  
by Sea in Packaged Form (Jul.1992)**



## MARPOL 73/78

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**Annex IV Regulations for the Prevention of  
Pollution by Sewage from ships**

**Annex V Regulations for the of Prevention  
Pollution by Garbage from Ships  
(Dec.1988)**

**Annex VI Regulations for the Prevention of  
Air Pollution from Ships**



## MARPOL 73/78

Convention shall apply to:

- ❖ Ships entitled to fly the flag of a Party to the Convention,
- ❖ Ships not entitled to fly the flag of a Party but operate under the authority of a Party. ( to foreign ships in ports and territorial waters of a party),
- ❖ EEZ (UNCLOS Part XII)



## Obligations

All sectors involved need to consider and meet the obligations with respect to

- ✓ Preparation of legislation (including regulations)
- ✓ Survey
- ✓ Inspection
- ✓ Constructional requirements
- ✓ Equipment requirements



## Obligations

All sectors involved need to consider and meet the obligations with respect to:

- ✓ Operational requirements
- ✓ Documentation
- ✓ Procedures
- ✓ Agreements with other governments



## Implementing MARPOL 73/78

Main groups involved in the implementation and inforcement:

- The shipbuilders and shipowners (equipment, construction, procedures and training)
- The maritime administration (own-flag ships, port State duties, coastal State duties)
- The ports – reception facilities



## Implementing MARPOL 73/78

Actions by the Maritime Administrations (Annex I)

- Notify IMO (exemptions, equivalents)
- Carry out initial, periodical and intermediate surveys (reg. 4)
- Carry out inspections of ships during the Port State Control



## Implementing MARPOL 73/78

Establish measures for ships not subject to survey under the annex

Institute unscheduled inspections

Investigate possible violations of the discharge requirements



### Implementing MARPOL 73/78

**Delegate surveys if necessary (reg.4)**  
**Issue certificates following surveys**  
**(reg.5,6,7,8)**



### Implementing MARPOL 73/78

**Approve COW systems,**  
**installations and manuals**  
**Approve oil content meters**  
**(reg. 13A(3))**  
**Approve CBT Operation Manual**  
**(reg. 13 A(4))**



### Implementing MARPOL 73/78

**Consider equipment waivers**  
**(reg. 13, 15(5), 16(3))**  
**Approve and agree special ballast**  
**arrangements**  
**(reg. 13(D))**



### Implementing MARPOL 73/78

**Approve ODM and control systems**  
**and instruction (reg. 15)**  
**Approve oil/water interface**  
**detectors (reg. 15)**  
**Approve oil filtering equipment (reg.**  
**16(4), (5))**



### Implementing MARPOL 73/78

**Approve SOPEP**  
**(reg. 26)**  
**Develop or approve Oil Record**  
**Books for oil tankers of less than**  
**150 grt (reg. 20(7))**  
**Consider and approve ship**  
**equipment and construction (in**  
**conjunction of survey)**



### Implementing MARPOL 73/78

**Actions by the Ship Operators or**  
**Owners**  
**Ship has been equipped to Annexes**  
**requirements**  
**Ship has been surveyed if over 400**  
**grt or, if tanker, over 150 grt**  
**Ship has an appropriate certificates**



## Implementing MARPOL 73/78

### Actions by the Ship Operators or Owners

**Ship has an Oil Record Book**

**Ship has a crew instructed and trained to comply with the discharge criteria**



## Implementing MARPOL 73/78

### Action by the Port

**Provision of adequate reception facilities**



## Implementing MARPOL 73/78

*Need for reminding States Parties of their obligations*

**Under the United Nations Convention on the Law of the Sea (UNCLOS), 1982**

**Articles: 192, 194, 211(2)**



## Implementing MARPOL 73/78

### Under the MARPOL 73/78 Convention

1. Reg. 12 of Annex I
2. Reg. 7 of Annex II
3. Reg. 7 of Annex V
4. Reg. 10 of Annex IV (when it enters into force, **September 2003**)
5. Reg. 17 of Annex VI (is not yet in force)



## Implementing MARPOL 73/78

### *Responsibility*

**States Parties to MARPOL 73/78 have undertaken to ensure the provisions of adequate waste reception facilities in their ports.**

**Most States have delegated this duty to their port industry or to other public or private bodies.**

**But**



## Implementing MARPOL 73/78

### **States retain the**

**ultimate responsibility**

**for ensuring that their undertaking is fulfilled in accordance with the Assembly Resolution A.896 (21)**



### Implementing MARPOL 73/78

Port Administration working in concert with actual providers (e.g. private contractors) of port waste reception facilities shall ensure that an effective prior notification and monitoring arrangement is in place and are suitable explained to all ships (and their agents) prior to port entry.



### Implementing MARPOL 73/78

The best option!

Shipping Safety Department  
(Shipping Inspectorate),  
which includes  
shipping inspection division



### Implementing MARPOL 73/78

#### Functions

1. Ships' technical and operational regulations
2. Manning and competence, operational conditions onboard ships
3. Control and supervision of shipping companies and ships




### Implementing MARPOL 73/78

#### Functions

4. Incident and accidents investigation
5. Prevention of pollution from ships
6. Port reception facilities
7. Dangerous goods carried by sea and handling of dangerous goods in port areas

MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 MARPOL 73/78  
Regional Workshop on National  
Implementation and Enforcement


National legal framework necessary to  
implement MARPOL

**Session 4**

Sponsored by the International Maritime Organisation

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Principal Obligation


MARPOL-Convention  
Article 1

(1) The Parties to the Convention undertake to give effect to the provisions of the present Convention and those Annexes thereto by which they are bound, in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention to the Convention.

"Give effect to" = to implement

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Type of Obligations

Example:


Regulation 14 of Annex I of MARPOL on "Segregation of oil and water ballast and carriage of oil in forepeak tanks":

(1) Except as provided in paragraph (2) of this regulation, in new ships of 4,000 tons gross tonnage and above other than oil tankers, and in new oil tankers of 150 tons gross tonnage and above, no ballast water shall be carried in any oil fuel tank.

Who has to do that?

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Type of Obligations

Example:


Regulation 5 of Annex I of MARPOL on "International Oil Pollution Prevention Certificate":

(1) An International Oil Pollution Prevention Certificate shall be issued ...

Who has to do that (reference to "Administration" in (2) sufficient)?

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Meaning of "Implementation"

- Implementation can be defined as transforming international obligations into the body of national law to make them directly applicable
- Transformation is a condition to enforce international obligations against private natural or legal persons
- Transformation, if suitable, from a State obligation into an obligation addressed to natural or legal persons

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003


 How to implement?

- by all legal means: law, regulation, administrative practise and instructions, as suitable, in the framework of the existing national legal order
- determine the responsible authorities, if possible, according to the existing situation
- determine the obligations of natural and legal persons
- define sanctions for non compliance with legal obligations

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of Implementation

**Article 1b of MARPOL- Adoption Law**

Irrespective of the responsibility of the owner and the operator of a merchant ship for the safe operational organisation, the master of the ship on board as the responsible person for all measures regarding the prevention of marine pollution shall make certain that no contravention in the meaning of Article 4 of the Convention is committed.

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 German example of Implementation


**New safety management concept as major facility to implement pertinent international obligations**

(In line with ISM-Code):

- assignment of primary responsibility to ship owner and master
- uniform application of international safety standards (including MARPOL)
- adoption of standards to international regulations

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 German example of Implementation


**Law on Maritime Safety**

§ 3

Any person operating a seagoing ship shall be responsible for the safe operation, especially with respect to maintenance and safe conduct and to take the necessary precautions with respect to third persons and the marine environment stemming from the risks involved of operating a ship. This responsibility shall extend to the obligation that persons employed with the undertaking and discharged with the performance of duties on board are properly selected, instructed, observed and supported.

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 German example of Implementation

**Law on Maritime Safety**


§ 4

To the extent that international safety standards listed in sections A and B of the Annex to this law establish obligations which shall be observed by individuals, organisations and undertakings (requirements) without stating exactly the responsibility of individuals, organisations and undertakings, the obligations of paragraph 7 to 9 of this law shall be applied with respect to the implementation of those requirements.

...

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 German example of Implementation

**Law on Maritime Safety**


§ 4 (ctd.)

...The ways and means to meet those requirements are to be found in section C of the Annex.

- § 7: Safety operation, construction of ship and ship equipment
- § 8: Conducting safe ship operations
- § 9: Additional definition of responsible persons

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 German example of Implementation


**Annex to the Law on Maritime Safety (= list of obligations):**

- A. Commonly recognized rules and norms under international law
- B. Regional Agreements applicable between State Parties
- C. International guidelines and standards, which have to be followed in the application of rules and norms under section A

.....

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 German example of implementation

**Annex to the Law on Maritime Safety:**  
.... (cld.)


D. Legal Acts of the European Community

E. International Safety norms, made applicable in Germany as recognized technical standards or maritime practice

**as far as those obligations can be performed by private natural or legal persons**

Josef Schülßlburger, Germany Presentation of MARPOL Side - 13 -

MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation


**Annex to the Law on Maritime Safety:**  
example for A:

II. International Convention for the Prevention of Pollution from Ship, 1973 including Protocol of 1978 (MARPOL) with Annexes I, II, III and V as well as Annexes to the Protocol of 1978 as re-enacted in official German translation of 12 March 1996 (Federal Gazette 1996 Vol. 2, p. 399

II. 0. 1 Amendment of 1990 by MEPC resolution 39 (29) adopted on 16 March 1990 .....

Josef Schülßlburger, Germany Presentation of MARPOL Side - 14 -

MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation

**Annex to the Law on Maritime Safety:**  
example for C:

II. To MARPOL


II.1 to Rule 26

(a) Guidelines for making emergency plans on board in case of oil pollution (MEPC. 54 (32) adopted on 6 March 1992 (Transport Gazette 1994, p. 833)

(b) .....

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation


**Annex to the Law on Maritime Safety:**  
example for B:

I. Article 11 of the International Agreement of 23 September 1910 for the unification of certain rules in case of assistance and salvage (Imperial Gazette 1913, p. 66)

II. Article 3 to 6 and 9 sec. 1 in connection with Articles 1, 2, 7, 8 and 10 of Annex IV of the Environment Protocol of 4 October 1991 to the Antarctic Treaty of 1 December 1959 (Federal Gazette 1994 Vol. 2, p. 2478) .....

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation

**Annex to the Law on Maritime Safety:**  
example for D:


8. Articles 4 to 10 Sec. 1 and 3, Articles 11 to 16 Sec. 1 and 2 in connection with Annexes I to VIII as well as to Articles 1 to 3 of the Regulation 95/21/EC of the Council of 19 July 1995 regarding implementation of international standards on the safety of ships, prevention of pollution ... (Port State Control) (EC Gazette No L 157 p. 1)

a) in combination with

8. 01 Article 1 of the Commission Regulation 96/40/EC of 25 June 1996 on uniform .....

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation

**Annex to the Law on Maritime Safety:**  
example for E:


4. IMO-Code regarding safety of special ships (Resolution A 534 (13) adopted on 17 November 1983 (Transport Gazette 1993, p. 671)

- Amendments of 1996 (MSC/Circular Letter 739 of 28 June 1996 (Transport Gazette 1996, p. 636)

5. Recommendations on ....

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation

**Law on Maritime Safety**  
**§ 10**


= obligation of Ship owner and master

to cooperate with the public authorities in order to facilitate the control with regard observing the described international standards

including those contained in the MARPOL-Convention, which are made directly applicable by this law

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 German example of implementation


**Law on Maritime Safety**  
**§ 2**

Scope of obligations:

- Ships entitled to fly the German flag
- All other ships in the territorial sea and Exclusive Economic Zone, unless international law imposes limitations on the application:
  - Annex A and C fully applicable (including MARPOL)
- Additional obligations for certain foreign State (contained in Annex B)

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Territorial jurisdiction for implementation


**Major obligation of the flag State**  
(Art. 211 (2) UNCLOS)

States shall adopt laws and regulations for the preservation, ...and control of pollution of the marine environment from vessels flying their flags .. Such laws ... shall at least have the same effects as that generally accepted international rules and standards ...

> IMO standards, especially MARPOL have to be applied by UNCLOS-States

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Territorial jurisdiction for implementation


**Major limitation on jurisdiction of coastal State vis-à-vis foreign ships:**  
innocent passage (Art. 17, 45, 52 UNCLOS)

but: Art. 21 (1) (f): Coastal State can legislate regarding innocent passage for the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof.

however ...

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 Territorial jurisdiction for implementation


.. with the following limitation (Article 21 (2) UNCLOS):

Such laws and regulations shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards.

> "IMO"- laws and regulations, especially MARPOL can be implemented

Josef Schüttbumer, Germany Presentation of MARPOL Side - 23 -

MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Territorial jurisdiction for implementation


**Major limitation on jurisdiction of coastal State vis-à-vis foreign ships in the EEZ:**

freedom of navigation as the most prominent of the High Seas freedom rights (Art. 58 (2) and 87 (1) (a) UNCLOS)

but: Art. 56 (1) (b) iii: Coastal State has jurisdiction with regard to the protection and preservation of the marine environment, in connection with ...

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **German example of implementation**

**Major limitation on jurisdiction of coastal State vis-à-vis foreign ships in the EEZ:**


... Article 211 (5):

Coastal States ... may in respect of their EEZ adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards...

> "IMO"- laws and regulations, especially MARPOL, can be implemented

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **Territorial jurisdiction for implementation**

**No limitation, in principle, on legislation regarding internal waters (Art. 8 UNCLOS):**


since "innocent passage" does not apply in this area  
(exception: Article 8 sec. 2)

> MARPOL-Regulations can also be applied to foreign ships of States that are not (fully) bound by MARPOL in internal waters of the coastal State

....

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **Territorial jurisdiction for implementation**

**No limitation, in principle, on legislation regarding internal waters (Art. 8 UNCLOS):**

This authority of coastal States in this respect is confirmed by Article 211 (3) UNCLOS (obligation to duly publish and communicate specific requirements for entry of foreign vessels into ports)


> MARPOL requirements can also be applied to foreign ships of States that are not (fully) bound by MARPOL in internal waters of the coastal State

example:

.....

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **German example of implementation**

>

**Article 2a  
of the Act adopting MARPOL**


= obligation to keep oil record books

for ships flying the flag of States that are not parties to Annex I of MARPOL if entering the internal waters of Germany

**In general:** standards of ships not fully bound by MARPOL have to conform to the principles underlying the relevant MARPOL standards, if entering the internal waters (§ 14 Law on Maritime Safety)

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **Conclusions**

- The MARPOL - Convention is properly implemented from the legal point of view as far as the responsibility of Germany as flag State is concerned
- Since the legal provisions equally apply on foreign ships within the EEZ, the territorial sea and internal waters (ports), also the obligation as coastal and port State is met from the legal point of view

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MARPOL-WORKSHOP, Session 4  
Colombo, 30 June - 4 July 2003

 **Conclusions**

- Implementation is made by the transformation of international obligations into obligations of private persons under national law enabling enforcement by the whole machinery of national law
  - administrative enforcement
  - exercise of police power, if necessary
  - and
  - imposition of sanctions (penalties)

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Conclusions

- Implementations of Amendments to MARPOL-Annexes as well as alterations of the Annex to the Maritime Safety law is facilitated (Ministry is empowered to issue a Regulation, § 15 Law on Maritime Safety)
- Certain inherent restrictions remain with respect to ships flying the flag of a foreign State but less in the field of legislation but regarding enforcement

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 Recommendations for Implementation

- German system of implementation may be too complicated to be simply copied by another State, though the major elements of implementation may have to be followed/taken into consideration
- However: proper implementation is guaranteed from the legal point of view
- Very positive: Imputing the major responsibility of performing according to the international rules to ship owner and ship master

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 Recommendations

- Somewhat negative: Methods of legislation too formalistic for the real addressee (subordinate authorities, ship owners and master)

Alternative/additional solution:  
Publication of an updated handbook, containing all transformed international obligations in native language to be followed by natural and legal persons: Handbook should be given legal force by an act of the responsible Ministry

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MARPOL-WORKSHOP; Session 4 Colombo, 30 June - 4 July 2003

 to conclude

Thank you for your attention!


Josef Schülßlberger, Germany Presentation of MARPOL Side - 34 -



### Environmental Certificates

All certificates to be carried on board must be originals!

1. International Oil Pollution Prevention Certificate
2. International Oil Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (NLS)
3. Certificate of Fitness for the Carriage of Dangerous chemicals in Bulk



### Environmental Certificates

All certificates to be carried on board must be originals!


4. International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk
5. Certificate of Fitness for the Carriage of Liquefied Gases in Bulk.
6. International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk.



### Environmental Certificates

All certificates to be carried on board must be originals!

7. Certificate of Fitness for Offshore Support Vessels
8. International Certificate of Fitness for the Carriage of INF Cargo.
9. International Sewage Pollution Prevention Certificate
10. International Air Pollution Prevention Certificate




### Documents of compliance

Managements Certificates (ISM Code):

**Document of Compliance**


**Safety Management Certificate**

(Operation Manual – Chapter on the Environment)



### Ship's Documents

1. Oil Record Book
2. Garbage Record Book
3. Garbage Management Plan
4. Record of oil discharge monitoring and control system for the last ballast voyage
5. Enhanced survey report file



### Ship's Documents

6. Shipboard oil pollution emergency plan
7. NLS cargo record book
8. NLS Procedures and Arrangements Manual (P&A Manual)
9. NLS Shipboard marine pollution emergency plan for noxious liquid substances.



## Documents to be examined

All certificates to be carried on board must be originals!

International Oil Pollution Prevention Certificate, including its supplement: Form B (tankers) and Form A (for other ships) (IOPP)

Reg. 5 Annex I.

Issue or endorsement of Certificate



## Documents of compliance

IOPP shall be issued (or endorsed):

- ✓ after an initial or renewal survey (Reg.4)
- ✓ to any oil tanker of 150 tons gt and above,
- ✓ to any other ships of 400 tons gt and above

which are

engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention

by



## Documents of compliance

by  
the Administration  
or

organization duly authorized by the Administration

- The Administration assumes full responsibility for the Certificate.
- No IOPP shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.



## Documents of compliance

Duration and validity of Certificate (Reg. 8)

- period shall not exceed 5 years,
- renewal survey within 3 months before the expiry date of the existing Certificate and
- renewal survey after the expiry date of the existing Certificate

the new Certificate shall be valid from the date of completion of survey to a date not exceeding 5 years from the date of expiry of the existing Certificate,



## Documents of compliance

Duration and validity of Certificate (Reg. 8)

- renewal survey completed, but a new Certificate cannot be issued and placed on board before the expiry date of the existing Certificate – the existing Certificate may be endorsed and shall be accepted as valid (period shall not exceed 5 months)
- Certificate for a period less than 5 years – may be extended to the maximum period of 5 years from the date of expiry of the existing Certificate,



## Documents of compliance

Duration and validity of Certificate (Reg. 8)

- Certificate expires when a ship is not in a port for survey – the Administration may extend the validity only for to complete the voyage to a port for survey (period shall not exceed 3 months). A ship is not allowed to leave the port without the renewal of the Certificate.
- The new Certificate shall be valid from the date of completion of survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.



## Documents of compliance

### Duration and validity of Certificate (Reg. 8)

- For a ship engaged on short voyages – may have been extended for a period of grace of up to 1 month from the date of expiry.
- Special circumstances – a new Certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.



## Documents of compliance

### Duration and validity of Certificate (Reg. 8)

A Certificate shall cease to be valid if:

- relevant surveys are not completed within the periods specified under Reg. 4(1) Annex I,
- Certificate is not endorsed in compliance with Reg. 4(1)(c) or 4(1)(d) of Annex I,
- upon transfer of the ship to the flag of another State



## Documents of compliance

### ✓ Oil Record Book (Part I and II) (Reg. 20 Annex I)

IMO Resolution A.742(18).

Procedures for the Control of Operational Requirements Related to the Safety of Ships and Pollution Prevention



## Documents of compliance

MEPC /Circ.235 (1990)

Guidelines for Systems for Handling Oily Wastes in Machinery Spaces of Ships

Capacity of sludge tanks

MARPOL 73/78 Unified Interpretations,  
Annex I, § 8, Reg.17(1) p. 166



## Documents of compliance

### Oil Record Book (Part I and II) (Reg. 20 Annex I)

- Bilge water (quantity, location, oily-water filtering equipment, transfers, discharge)
- Sludge = oil residues (quantity, tanks capacity, location, transfer, discharge)
- Dry sludge = hard sludge
- ReFacs (use, inadequacy, reporting)
- Manuals, instructions, language



## Documents of compliance

- ✓ Records of oil discharge monitoring and control system for the last ballast voyage (Reg. 15 (3) (a) Annex I) – dirty ballast discharge, failure, manually operated alternative method.

The port State authority may allow the tanker with a defective unit to undertake one ballast voyage before proceeding to a repair port.





## Documents of compliance

**Enhanced Survey report file (bulk carriers and oil tankers) (Reg.13G Annex I)**

**Shipboard Oil Pollution Emergency Plan (SOPEP) (Reg. 26 Annex I)**

- ❖ Onboard spill equipment
- ❖ Training summary records
- ❖ Drill summary records (SOPEP+Log Book)



## Documents of compliance

### **Garbage record book**

- ✓ Categories of garbage (6)
- ✓ Discharge (m<sup>3</sup>)
- ✓ Plastics!
- ✓ ReFacs

## REPORTING UNDER MARPOL

BY

**JOHN ØSTERGAARD**

SENIOR ADVISER ON MARINE POLLUTION

INTERNATIONAL MARITIME ORGANIZATION

## REPORTING UNDER MARPOL 73/78

### OBJECTIVE

**TO PROVIDE KNOWLEDGE ON  
MANDATORY REPORTING  
UNDER MARPOL 73/78**

### TYPE OF REPORTS

(Related to protection of the marine environment)

1. **REPORTS BY A STATE PARTY TO OPRC 1990, in accordance with Articles (4) and 5 of that Convention.**
2. **REPORTS BY THE MASTER OF A SHIP IN ACCORDANCE WITH ARTICLE 8 OF MARPOL 73/78.**

### REPORTS BY A STATE PARTY TO OPRC 1990

THE REQUIREMENTS OF ARTICLE 4 OF THE INTERNATIONAL CONVENTION ON OIL POLLUTION PREPAREDNESS, RESPONSE AND CO-OPERATION (OPRC), 1990, ARE IDENTICAL BUT MORE DETAILED THAN THOSE OF ARTICLE 8 OF MARPOL.

(In general, Article 4 requires that all who causes or become aware of an oil spill have to report such a spill).

### TYPE OF REPORTS

**REPORTS BY THE MASTER OF A SHIP IN  
ACCORDANCE WITH ARTICLE 8 OF  
MARPOL 73/78.**

### MANDATORY REPORTS ON INCIDENTS INVOLVING HARMFUL SUBSTANCES

### INCIDENTS INVOLVING HARMFUL SUBSTANCES

#### ARTICLE 8 (1)

- (1) A report on an incident shall be made without delay to the fullest extent possible in accordance with the provisions of Protocol I to the present Convention.

## MANDATORY REPORTS ON INCIDENTS INVOLVING HARMFUL SUBSTANCES

### ARTICLE 8 (CONT'...)

- (2) Each Party to the Convention shall:
- (a) make all arrangements necessary for an appropriate officer or agency to receive and process all reports on incidents; and
  - (b) notify the Organization with complete details of such arrangements for circulation to other Parties and Member States of the Organization

## MANDATORY REPORTS ON INCIDENTS INVOLVING HARMFUL SUBSTANCES

### ARTICLE 8 (CONT'...)

- (3) Whenever a Party receives a report under the provision of the present article, that Party shall relay the report without delay to:
- (a) the Administration of the ship involved; and
  - (b) any other State which may be affected.

## MANDATORY REPORTS ON INCIDENTS INVOLVING HARMFUL SUBSTANCES

### ARTICLE 8 (CONT'...)

- (4) Each Party to the Convention undertakes to issue instruction to its maritime inspection vessels and aircraft and to other appropriate services, to report to its authorities any incident referred to in Protocol I to the present Convention. That Party shall, if it consider it appropriate, report accordingly to the Organization and to any other party concerned.

## PROTOCOL TO MARPOL 73/78 (Provisions concerning Reports on Incidents Involving Harmful Substances)

- Article 1: *Duty to report*
- Article 2: *When to make reports*
- Article 3: *Contents of report*
- Article 4: *Supplementary report*
- Article 5: *Reporting procedures*

Principles for Ship Reporting System are set out in IMO Assembly Resolution A. 851(20) adopted on 27 November 1997.

## Provisions concerning Reports on Incidents Involving Harmful Substances under MARPOL 73/78

All details on reporting can be found in the IMO Publication (IMO-516E), which was distributed on Monday.

## OTHER MANDATORY REPORTINGS UNDER MARPOL 73/78

### ARTICLES 4(3) and 6(4) OF MARPOL 73: REPORTING OF VIOLATION

*When information or evidence with respect to any violation of the present Convention by a ship is furnished to the Administration of that ship, the Administration shall promptly inform the Party which has furnished the information or evidence, and the Organization, of action taken*

## OTHER MANDATORY REPORTINGS UNDER MARPOL 73/78

### ARTICLE 11 OF MARPOL 73: *COMMUNICATION OF INFORMATION TO IMO:*

- (a) The text of laws, orders, decrees and regulations and other instruments related to national implementation;
- (b) A list of nominated surveyors or recognized organizations which are authorized to act on their behalf in matters relating MARPOL implementation on ships carrying harmful substances.
- (c) Examples of certificates

## OTHER MANDATORY REPORTINGS UNDER MARPOL 73/78

### ARTICLE 11 OF MARPOL 73: *COMMUNICATION OF INFORMATION TO IMO:*

- (d) A list of reception facilities, including location, capacity and availability.
- (e) Official reports and summaries of official reports in so far as they show the results of the application of MARPOL.
- (f) An annual statistical report, in a form standardized by the Organization, of penalties actually imposed for infringement of MARPOL.

## OTHER MANDATORY REPORTINGS UNDER MARPOL 73/78

### ARTICLE 12(2) OF MARPOL 73: *Casualty to ships*

- (2) Each Party undertakes to supply the Organization with information concerning the findings of such investigations, when it judges that such information may assist in determining what changes in the present Convention may be desirable.

## OTHER MANDATORY REPORTINGS UNDER Annex I of MARPOL 73/78

### REGULATION 4(2)(b) of Annex I: *Survey*

- (b)(ii) The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyor or recognized organization, for circulation to Parties to the present Protocol for the information of their officers.

## OTHER MANDATORY REPORTINGS UNDER Annex I of MARPOL 73/78

### REGULATION 10(7)(b) (vi) of Annex I: *Methods for the prevention of oil pollution from ships while operating in a special area (Red Sea, Gulfs area, Gulf of Aden area and North-West European waters)*

- (b)(vi) After the date on which the requirements of the special area in question take effect, each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.

## OTHER MANDATORY REPORTINGS UNDER Annex I of MARPOL 73/78

### REGULATION 12(5) of Annex I: *Reception facilities*

- (5) Each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

**OTHER MANDATORY REPORTINGS  
UNDER Annex I of MARPOL 73/78**

REGULATION 13D(3) of Annex I  
*Existing oil tankers having special ballast arrangements*

- (3) An Administration which has endorsed a Certificate in accordance with subparagraph (1) (c) of this regulation shall communicate to the Organization the particulars thereof for circulation to the Parties to the present Convention.

**OTHER MANDATORY REPORTINGS  
UNDER Annex II of MARPOL 73/78**

REGULATION 2 (6) and (7) of Annex II  
*Application*

- (6) The Administration which allows a fitting, material, appliance or apparatus as alternative to that required by this Annex, under paragraph (5) of this regulation, shall communicate to the Organization for circulation to the Parties to the Convention, particulars thereof, for their information and appropriate action, if any.
- (6)(b) Relaxations by Administrations to the application of an amendment shall be communicated to the Organization.

**OTHER MANDATORY REPORTINGS  
UNDER Annex II of MARPOL 73/78**

REGULATION 5 (13) of Annex II  
*Discharge of noxious liquid substances  
Category A, B and C substances within a special Area*

- (13)(a) The Governments of Parties to the Convention, the coastline of which borders on any given special area, shall collectively agree and establish a date by which time the requirement of regulation 7(1) of this Annex will be fulfilled and from which the requirements of paragraphs (7), (8), (9) and (10) of this regulation in respect of that area shall take effect and notify the Organization of the date so established at least six month in advance of that date. The Organization shall promptly notify all Parties of that date.

**OTHER MANDATORY REPORTINGS  
UNDER Annex IV of MARPOL 73/78**

REGULATION 10(2) of Annex IV  
*Reception facilities*

- (10)(2) The Governments of each Party shall notify the Organization for transmission to the Contracting Governments concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.


**OTHER MANDATORY REPORTINGS  
UNDER Annex V of MARPOL 73/78**

REGULATION 7(2) of Annex V  
*Reception facilities*

- (7)(2) The Governments of each Party shall notify the Organization for transmission to the Contracting Governments concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

MARPOL-WORKSHOP; Session 7 Colombo, 30 June - 4 July 2003

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MARPOL 73/78  
 Regional Workshop on National  
 Implementation and Enforcement

## How to respond to violations

### Session 7


Sponsored by the International Maritime Organisation

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MARPOL-WORKSHOP; Session 7 Colombo, 30 June - 4 July 2003

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**Obligation to enforce**

### Article 4 of the MARPOL- Convention Violation


(1) Any violation of the requirements of the present Convention shall be prohibited and sanctions shall be established therefore under the law of the Administration of the ship concerned wherever the violations occurs ..

---

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**Meaning of sanctions**

### Article 4 (4) of the MARPOL-Convention Violation


The penalties specified under the law of a Party pursuant to the present article shall be adequate in severity to discourage violations of the present Convention and shall be equally severe irrespective of where the violations occur.

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MARPOL-WORKSHOP; Session 7 Colombo, 30 June - 4 July 2003

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**Obligation of the flag State to enforce**

### Article 2 (5) of the MARPOL-Convention

Administration means the Government of the State under whose authority the ship is operating. With respect to a ship entitled to fly a flag of any State, the Administration is the Government of that State.


(in combination with Article 4 (1))

---

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MARPOL-WORKSHOP; Session 7 Colombo, 30 June - 4 July 2003

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**Obligation coastal State to enforce**

### Article 4 of the MARPOL-Convention Violation


(2) Any violation of the requirements of the present Convention within the jurisdiction of any party to the Convention shall be prohibited and sanctions shall be established therefore under the law of that party.

---

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MARPOL-WORKSHOP; Session 7 Colombo, 30 June - 4 July 2003

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**Meaning of jurisdiction**

### Jurisdiction according to UNCLOS Enforcement of pollution regulations

(a) Art. 217: by the flag State according to its rules "irrespective of where a violation occurs"

(b) Art. 218: by the port State if (foreign) vessel is voluntarily within port

(c) Art. 220: by coastal State if (foreign) vessel is voluntarily within its port or navigating in its territorial sea or its exclusive economic zone

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MARPOL-WORKSHOP, Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

**Provisions of the Penal Code**  
Polluting of waters  
§ 324

(1) Anyone who illicitly pollutes waters or alters their character to the detriment shall be punished with imprisonment up to five years or with a fine.

(2) Attempt is punishable.

(3) If the perpetrator acts negligently, punishment shall be imprisonment up to three years or a fine.

Josef Schülßlberger, Germany      Presentation of MARPOL      Side - 7 -

MARPOL-WORKSHOP, Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

**Provisions of the Penal Code**  
**Definitions**  
§ 330d

For the purpose of this section

1. waters means: surface water, ground water and the sea;

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MARPOL-WORKSHOP, Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

**Provisions of the Penal Code**  
Application for internal offences  
§ 3

The German penal law shall apply to offences committed in the territory of the State.

.....

Josef Schülßlberger, Germany      Presentation of MARPOL      Side - 9 -

MARPOL-WORKSHOP, Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

**Provisions of the Penal Code**  
Application regarding offences on German ships and aircraft  
§ 4

The German penal law shall apply, irrespective of the applicable law of the place, to offences committed on a ship .... entitled to fly the flag of the Federal Republic of Germany.

.....

Josef Schülßlberger, Germany      Presentation of MARPOL      Side - 10 -

MARPOL-WORKSHOP, Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

**Provisions of the Penal Code**  
Foreign offences against German legal interests  
§ 5

The German penal law shall apply, irrespective of the applicable law of the place, to the following offences, which have been perpetrated abroad:

.....

11. criminal offences against the environment in cases of §§ 324, 326, 330 and 330a, if perpetrated in the area of the German exclusive economic zone, as far as public international law allows pursuing them as criminal offences.

Josef Schülßlberger, Germany      Presentation of MARPOL      Side - 11 -

MARPOL-WORKSHOP, Session 7  
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**Enforcement in Germany**

**Provisions of the Law on Criminal Procedures**  
§ 10a

If no local court can claim jurisdiction for an offence as described in the twenty-eighth section of the Penal Code [= offences against the environment], which has been committed outside the territory, where this law applies, the Court at Hamburg shall be the competent local court.

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MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

**Regulation on the infringement of the MARPOL Agreement**

§ 3

.....

(3) An infringement is committing who intentionally or negligently as a master of a ship or who is otherwise responsible for the keeping the record books, is

.....

Josef Schölten, Germany      Presentation of MARPOL      Side - 13 -

MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

**Regulation on the infringement of the MARPOL Agreement**

§ 3

(3) .....

1. .... acting in contravention to the provisions of Annex I Chapter II Regulation 13 section 3 sentence 2, Regulation 13D Section 2 sentence 2, Regulation 14 section 2, second part of the sentence, Regulation 15 section 3 letter a sentence 6 or section 4 sentence 2 or Regulation 20 Section 1 till 5 on keeping and maintaining oil record books or on recording, or

...

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MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

**Regulation on the infringement of the MARPOL Agreement**

§ 3

.....

(2) who does not, contrary to Annex I Chapter II Regulation 21 letter b, keep records on all events, in which oil or oily effluents have been discharged to the sea.

.....

Josef Schölten, Germany      Presentation of MARPOL      Side - 15 -

MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

**Regulation on the infringement of the MARPOL Agreement**

§ 3 c

The infringement according to .... § 3 section 3 can be fined with an administrative penalty up to twenty-five thousand Euros ...

.....

Josef Schölten, Germany      Presentation of MARPOL      Side - 16 -

MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

**Law on infringements**

§ 17

(4) An administrative penalty shall exceed the economic advantage that the perpetrator has gained from his deviation. If the maximum amount fixed by law is not sufficient to this end it can be surpassed.

.....

Josef Schölten, Germany      Presentation of MARPOL      Side - 17 -

MARPOL-WORKSHOP; Session 7  
Enforcement in Germany  
Colombo, 30 June - 4 July 2003

In 2001 altogether 6.225 control measures with respect to MARPOL requirements were conducted in the territorial sea and the exclusive economic zone.

In this context 3550 record books, mainly oil record books, were examined. With regards Annex V to MARPOL 2.675 controls were made.

In 1.494 cases violations have been detected, 1.218 cases were related to Annex I, 21 cases to Annex II and 255 cases to Annex V of MARPOL.

.....

Josef Schölten, Germany      Presentation of MARPOL      Side - 18 -



MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

1.206 of these cases were pursued by a police rebuke, in 814 cases of which a so-called admonition fee had to be paid.  
288 of the cases resulted in an infringement procedure, which caused 268 charging orders amounting altogether to 739.682 DM, thus the average fine was 2.760 DM (ranging from 100 DM to 20.000 DM). 29 cases were closed down, five cases are currently not yet settled, three of them may result in criminal prosecution.

**The major area of infringement relates to oil records books.**

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 19 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

In 2001  
305 cases of marine pollutions were detected.

In 45 cases the possible perpetrator could be identified.  
The overwhelming majority of cases, namely 84 per cent are concerned with the illegal discharge of oil or oily effluents

...

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 20 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

In 2001  
The prosecution started 179 investigating procedures based on § 324 of the Penal Code but 165 procedures have been closed down, in two cases on the condition of a fine of DM 1.988.

In four cases a summary punishment order by the Court in lieu of a judgment was issued amounting to a sum of DM 36.100.

Ten cases have been reported to the foreign flag State and further 10 cases are currently still unresolved.

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 21 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

Between 1984 and 2001 altogether 1.507 infringements against MARPOL requirements by foreign ships have been reported to the relevant flag States (in 2001: 37), in which it was not appropriate or possible to complete the procedure in Germany, since committed on the High Seas or foreign suspect had no residence.

In 734 of those cases the respective flag State has reported back about measures taken.

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 22 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

Of the 35 feed-back reports in 2001,  
in 10 cases pecuniary punishment was imposed by the foreign flag State, altogether amounting to DM 44.620,  
19 cases were closed down and  
in six cases, the ship was removed from the shipping registry.

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 23 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

Finally, in 2001 the responsible German office received one case by a foreign State regarding a ship flying the German flag regarding suspicion of violations of MARPOL requirements, which resulted in criminal investigation regarding § 324 of the Penal Code. In view of the minor guilt of the suspect the procedure was closed down on the condition of a fine of 500 €.

Josef Schülthamer, Germany  
Presentation of MARPOL  
Slide - 24 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

According to § 3 MARPOL-Infringement Regulation in combination with Rule 9, 10, 17 and 20 Annex I MARPOL 73/78 as well as according to § 3a MARPOL-Infringement Regulation in combination with Rule 5, 8 and 9 Annex II MARPOL 73/78 and § 3b MARPOL-Infringement Regulation in combination with Rule 3, 4, 5 and 9 Annex V MARPOL 73/78

the following picture on actual enforcement can be presented:

.....

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MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement in Germany**

...

pending investigations	2001	288	(409)
administrative fines	2001	268	(301)
closed down	2001	29	(80)
not yet completed	2001	5	
reports to the flag State	2001	37	(60)
Sum of fines	2001	739.582,55 DM	(901.391,--DM)
Individual amount	2001	100,-- DM till 31.000,-- DM	(100,-- DM till 26.000,-- DM)
Average amount		2.750,-- DM	(3.000,-- DM)

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MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Flag State Enforcement**

**Article 4 (1) of the MARPOL-Convention**

If the administration is informed of such violation ... it shall cause such proceedings to be taken as soon as possible in accordance with its law.

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MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement by other States**

**Article 4 (2) of the MARPOL-Convention**

The Party shall either:

- (a) cause proceedings to be taken in accordance with its law, or
- (b) furnish to the Administration of the ship such information ... that a violation has occurred.

Josef Schülßner, Germany      Presentation of MARPOL      Side - 28 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement by port States**

**Article 218 (1) of UNCLOS**

When a vessel is voluntarily within a port ... of a State, that State may undertake investigations and ... institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards ...

Josef Schülßner, Germany      Presentation of MARPOL      Side - 29 -

MARPOL-WORKSHOP; Session 7  
Colombo, 30 June - 4 July 2003

**Enforcement by port States**

**Article 230 (1) of UNCLOS**

Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.

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MARPOL-WORKSHOP, Session 7 Colombo, 30 June - 4 July 2003

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**Enforcement by port States**

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**Article 230 (2) of UNCLOS**

Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

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MARPOL-WORKSHOP, Session 7 Colombo, 30 June - 4 July 2003

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**Enforcement by port States in Europe**

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**Obligations of European Member States to enforce MARPOL** (among other legal instruments)

Member States shall maintain appropriate national maritime administrations with the requisite number of staff ... for the inspection of ships and shall take whatever measures are appropriate to ensure that their competent authorities perform their duties ...

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MARPOL-WORKSHOP, Session 7 Colombo, 30 June - 4 July 2003

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**Enforcement by port States in Europe**

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**Obligations of European Member States to enforce MARPOL** (among other legal instruments)

The total number of inspections of the (foreign) ships to be carried out annually by the competent authority of each Member State shall correspond to at least 25% of the average annual number of individual ships which entered the ports, calculated on the basis of the three most recent calendar years ...

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**Enforcement of port States in Europe**

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**Obligations of Germany under Paris MoU/European Directive**

2002: 6770 foreign ship in German Ports  
 > 25 % according to the MoU:  
 = 1693 foreign ships to be controlled in 2003  
 = 141 monthly

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**Enforcement by port States in Europe**

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**Implementation of German obligations in March 2003**

Ships actually controlled:  
 125

without deficiencies: 55 (44.0%)  
 with deficiencies: 66 (52.8%)  
 detentions: 4 (3.2%)

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**Enforcement by port States in Europe**

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**Further obligation of EC States to impose penalties**

Member States shall lay down a system of penalties for the breach of national provisions adopted ... and shall take all the necessary measures necessary to ensure that those penalties are applied. The penalties thus provided shall be effective, proportionate and dissuasive.

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**Enforcement by port States in Europe**

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**Access refusal**

A Member States shall ensure that a ship ... is refused access to its ports ... if the ship:

either

- flies the flag of a State appearing in the black list as published in the annual report of the MOU, and
- has been detained more than twice in the course of the preceding 24 months in a port of a State signatory of the MOU

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MARPOL-WORKSHOP, Session 7 Colombo, 30 June - 4 July 2003

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**Enforcement by port States in Europe**

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**Access refusal**

or

- flies the flag of a State described as "very high risk" or "high risk" in the black list as published in the annual report of the MOU, and
- has been detained more than once in the course of the preceding 36 months in a port of a State signatory of the MOU.

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**Completion of implementation**

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The obligation to implement an international agreement is fully met, if enforcement is in place, not only by writing something in the law book but by establishing a machinery, which allows actual enforcement, if necessary in cooperation with other States

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**to conclude**

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**Thank you for your attention!**

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MARPOL-WORKSHOP, Session 7 Colombo, 30 June - 4 July 2003

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**to conclude**


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**Thank you for your attention!**

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### FS and PS Control

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**Purpose of PSC inspections:**  
recognition of deficiencies

**Inspection:**  
a visit on board ship to check both the validity of relevant certificates and other documents, and the overall condition of the ship, its equipment, and its crew.




### FS and PS Control

---

**Application of the procedures**  
Ships which come under the provisions :

- SOLAS 74 (+ Protocol of 1988)
- Load Lines 66 (+ Load Lines Protocol 88)
- MARPOL 73/78
- STCW 78 (as amended)
- Tonnage 69
- ILO Convention No. 147




### FS and PS Control

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**Application of the procedures**

**In exercising port State control, Parties will only apply those provisions of the conventions which are in force and which they have accepted**




### Port State Control

---

**Memorandum of Understanding on Port State Control**

The Maritime Administrations of countries have reached the following understanding on:

- Commitments (4)
- Relevant Instruments (conventions)
- Inspection Procedures, Rectification and Detention
- Provision of information (each Authority)




### Port State Control

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- Operational Violations
- Organization :
  - ✓ Committee (representatives from the Authorities + an observer from IMO and ILO)
  - ✓ A secretariat
- Amendments

(Paris MOU took effect on 1 July 1982)




### Port State Control

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**Important !**

- "Oil-like" noxious liquid substances may be carried on product carriers
- Shipboard Oil Pollution Emergency Plan (SOPEP)
- Oil and oily mixtures from machinery spaces




## Port State Control

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**Important !**

- Loading, unloading and cleaning procedures for cargo spaces of tankers
- Garbage
- Procedures for Investigations Under MARPOL 73/78




## FS and PS Control

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**MARPOL 73/78**  
recognizes 3 types of control:

- ✓ Flag State (flag of a Party to the Convention)
- ✓ Port State – (in ports/offshore terminals of a Party to the Convention)
- ✓ Coastal State




## Ship Inspection

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**On board**


- ✓ Introduction to the Master or responsible officer.
- ✓ Purpose of his inspection.
- ✓ Master remains accountable for the safety and pollution prevention



## Ship Inspection

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- ✓ Master should assign a knowledgeable officer
- ✓ Inspector should refrain from conducting test himself
- ✓ Inspector should be mindful of safety issues and of actions which may cause a violation.



## Ship Inspection

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- For the control procedures the inspector should be guided by established policies of the Administration
- Specific guidelines - "Procedures on Port State control". Res. A.787(19) and amendments Res. A.882(21) :
- Administration should establish national policy to deal with violations found in port.



## Ship Inspection

---

**The established policy must be documented and available to the inspector.**

**Governments should create and maintain an accurate and current database of all violations.**



## Ship Inspection

All certificates to be carried on board must be originals!

Documents to be examined:

- ✓ International Oil Pollution Prevention Certificate, including its supplement: Form B (tankers) and Form A (for other ships) (IOPP) (Reg. 5 Annex I)



## Ship Inspection

- ✓ Enhanced Survey report file (bulk carriers and oil tankers) (Reg.13G Annex I)
- ✓ Records of oil discharge monitoring and control system for the last ballast voyage (Reg. 15 (3) (a) Annex I)



## Ship Inspection

- ✓ Oil Record Book (Part I and II) (Reg. 20 Annex I)

IMO Resolution A.742(18).

Procedures for the Control of Operational Requirements Related to the Safety of Ships and Pollution Prevention

- ✓ Shipboard Oil Pollution Emergency Plan (SOPEP) (Reg. 26 Annex I)



## Ship Inspection

- International Certificate of Fitness for the carriage of Dangerous Chemicals in Bulk (IBC Code, section 1.5 is mandatory under Annex II for chemical tankers constr. on or after 1 July 1986)



## Ship Inspection


- International Pollution Prevention Certificate for the carriage of Noxious Liquid Substances in Bulk (NLS) (Reg. 12 and 12a Annex II)
- NLS Cargo Record Book (Reg. 9 Annex II)
- NLS Procedures and Arrangements Manual – 1 & 2 Manual (Reg. 5,5a,8 Annex II)



## Ship Inspection

- Shipboard Marine Pollution Emergency Plan for Noxious Liquid Substances (Reg. 16 Annex II) – shall apply to ships not later than 1 January 2003.
- Shipboard Marine Pollution Emergency Plan (oil-like substances) (Reg. 16 § 3 Annex II, Reg. 26 § 3 Annex I)






## Ship Inspection

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- **Certificate of Fitness for the carriage of Dangerous Chemicals in Bulk (CCF)**  
(Bulk Chemical Code, section 1.6 is mandatory under Annex II for chemical tankers constr. before 1 July 1986)



## Ship Inspection

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- ❖ **Dangerous goods manifest or stowage plan (Reg. 4 Annex III)**
- **International Sewage Pollution Prevention Certificate (Reg. 4 Annex IV)**
- **Certificate of Type Test for Sewage Treatment Plant.**




## Ship Inspection (DG/MP)

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Dangerous goods and harmful substances in packaged form  
(MARPOL 73/78 Annex III and IMDG Code)

**Documentation On board the Ship**

- **DG List or DG Manifest (in addition to TD = stowage location, total quantity of DG and MP)**
- **Detailed stowage plan (class, location DG/MP)**




## Ship Inspection (DG/MP)

---

**Documentation Aboard the Ship**

- **Emergency response information (safety data sheet, EmS Guide, MFAG)**
- **Special certificates (weathering certificate, exemptions, a new substance, material, article)**




## Ship Inspection (DG/MP)

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**Documentation**

- **DG transport documentation**
- **Container/vehicle packing certificate**
- **Documentation required aboard the ship**  
other required info and documentation
- **Multimodal DG Form**



## Ship Inspection

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- **Garbage Management Plan (Reg. 9 Annex V)**
- **Garbage Record Book (Reg. 9 Annex V)**



## Ship Inspection

European Union Council Directive 95/21/EC concerning the enforcement, in respect of using Community ports and sailing in the water under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port State control)



## Ship Inspection

### Amendments!

European Union Council Directive 98/25/EC

Article 9a. Member States shall take the measures necessary to ensure that all ships authorised to leave a port in a Member State (absence of the Document of Compliance) shall be refused access to all ports in the Community



## Ship Inspection

### Amendments!

European Union Council Directive 98/25/EC

Article 2. Member States shall bring into force the laws, regulations and Administrative provisions necessary to comply with this Directive before 1 July 1998



## Ship Inspection


### Amendments!

□ Commission Directive 98/42/EC (amending Council Directive 95/21/EC)

□ Commission Directive 1999/97/EC (amending Council Directive 95/21/EC)  
*(Part II is replaced. Overall targeting factors – priority for inspections, a new Annex VIII added – Publication of information related to detentions and inspections in ports of Member States)*



MARPOL-WORKSHOP, Session 9 Colombo, 30 June - 4 July 2003



## Regional Workshop on National Implementation and Enforcement of MARPOL 73/78

### Role of Classification Societies related to MARPOL 73/78 and Flag State Authorization and National Register of Shipping

#### Session 9

Sponsored by the International Maritime Organization

H. Marcolli A. Wegener June 2003 No. 1 Germanischer Lloyd

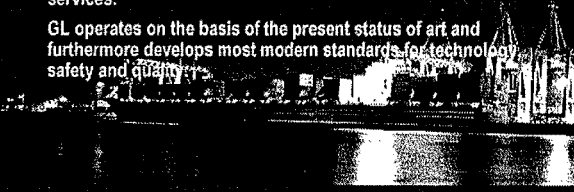
## Introducing Germanischer Lloyd

GL is one of the leading international classification and certification societies.

GL is member of IACS -International Association of Classification Societies- and was established 1867 in Hamburg

GL is an independent organisation for maritime and industrial services.

GL operates on the basis of the present status of art and furthermore develops most modern standards for technology, safety and quality.



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## Maritime Services

**Head Office**

- Classification and Flagstate Affairs
- Ship Technology
- Advanced Engineering & Strategic Research

**Field Service**

- Central Europe
- East Asia
- Mediterranean / Middle East / Black Sea / Africa
- America



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## Maritime Services in Figures

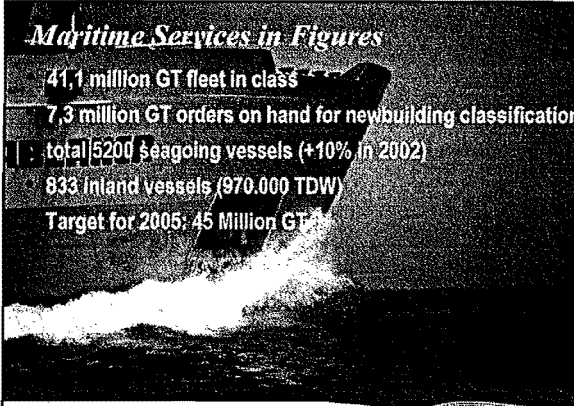
41,1 million GT fleet in class

7,3 million GT orders on hand for newbuilding classification

total 5200 seagoing vessels (+10% in 2002)

833 inland vessels (970.000 TDW)

Target for 2005: 45 Million GT



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## Germanischer Lloyd in Figures

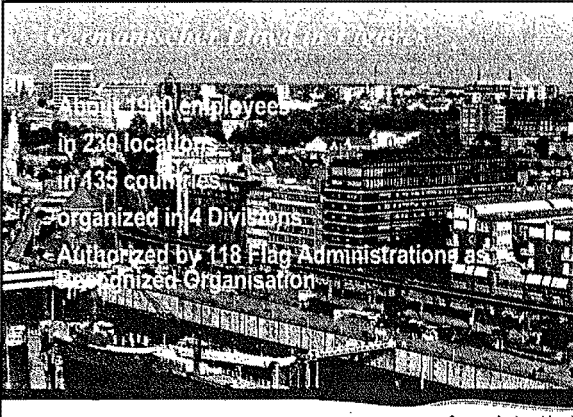
• About 1900 employees

• in 230 locations

• in 135 countries

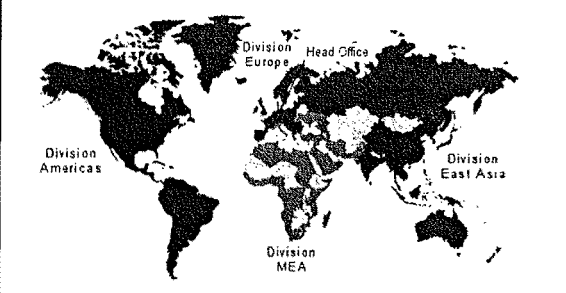
• organized in 4 Divisions

• Authorized by 118 Flag Administrations as Specialized Organisation

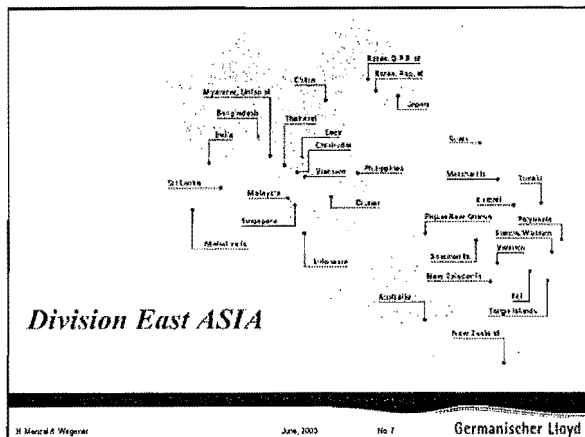


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## GL is represented world-wide



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## What does Classification mean?

### Principles of Classification

- Impartiality
  - Independence
  - Activities performed in the public interest
  - Commitment to Ship Safety

Consequences...

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### Consequences (1)

- Development of specific (Classification) Rules and Regulations
- Maintenance and publication of a Register Book
- Sole responsibility within the scope of Classification
- Rejection of any third party influence
- Expertise not favoring any party

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### Consequences (2)

- Obligation to observe flag-states directives
- Special contractual relationships
  - with shipyard, during newbuilding period
  - with owners, for ships in service
- Secure storage and administration of submitted documentation
- Observance of copyright

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### Who is interested in the Classification of ships ?

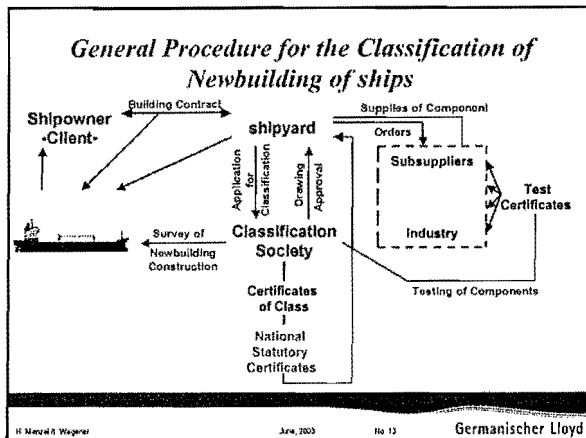
- Marine insurance companies
- Cargo underwriters
- National ship safety authorities granting sailing permits
- Charterers/ Owners
- Shipyards

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### Rules and Guidelines of Germanischer Lloyd

I	SHIP TECHNOLOGY	V	ANALYSIS TECHNIQUES
Part 0	Classification and Surveys	VI	ADDITIONAL RULES AND GUIDELINES
Part 1	Sailing Ships	Part 1	Storage Tanks Cargo
Part 2	Inland Waterway Vessels		Handling Equipment
Part 3	Pleasure Craft	Part 2	Life Saving Appliances
Part 4	Special Equipment		Lifting Appliances - Towing Gears -
II	MATERIALS AND WELDING		Accesses
Part 1	Metallic Materials	Part 3	Machinery Installations
Part 2	Non-metallic Materials	Part 4	Diesel Engines
Part 3	Welding	Part 5	Propellers
III	OFFSHORE TECHNOLOGY	Part 6	Pumps - Compressors - Fittings
Part 1	Underwater Technology	Part 7	Type Test and Approvals
Part 2	Offshore Installations	Part 8	Electrical Technology
Part 3	Mooring and Loading Installations	Part 9	Materials - Welding
Part 4	Subsea Pipelines and Risers	Part 10	German Statutory Guidelines
IV	NON-MARINE TECHNOLOGY	Part 11	Other Operations
Part 1	Wind Energy		
Part 2	Offshore Wind Energy		

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**Activities of GL with respect to Flag State Authorizations**

- Authorization of Organizations
- Status of Conventions (MARPOL)
- Ratification of MARPOL by South Asean Sea States
- Implementation in GL's Instructions to Surveyors

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**Flag State Authorization**

- Authorization of Organizations acting on behalf of the Administration
- IMO member States wished to develop uniform procedures and a mechanism for the delegation of authority
- 1993 Guidelines for the Authorization of Organizations acting on behalf of the Administration have been developed
- Minimum Standards for the recognized Organizations acting on behalf of the Administration
- Such criteria are met by a number of the 50 or more classification societies which exist today.

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**Summary of Status of Conventions As at 28 February, 2003**

Convention	Entry into Force	Number of Parties	Number of Parties (as at 28 Feb 2003)
MARPOL 73/78 (Annex I/II)	02-Oct-83	125	97.00
MARPOL 73/78 (Annex III)	01-Jul-92	107	83.03
MARPOL 73/78 (Annex IV)	27-Sep-03	91	51.22
MARPOL 73/78 (Annex V)	31-Dec-88	112	89.34
MARPOL Protocol 1997 (Annex VI)	??	8	26.27

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**Ratification of MARPOL by South Asean Sea States**

☒ := ratified  
☐ := not ratified

Country	Annex I/II	Annex III	Annex IV	Annex V	Annex VI
Bangladesh	☒	☒	☒	☒	☒
India	☒	☐	☐	☐	☐
Maldives	☐	☐	☐	☐	☐
Pakistan	☒	☒	☒	☒	☐
Sri Lanka	☒	☒	☒	☒	☐

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**GL's Instructions to Surveyors for the South Asean Sea States**

- Administration Data
- Ratification of Conventions
- Scope of Authorization
- Survey/ Issue of Certificates
- Approval of Document
- Specific Flag States Requirements
- Reporting

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## GL's Scope of Authorization for the South Asian Sea States (MARPOL)

- Bangladesh
- India
- Maldives
- Pakistan
- Sri Lanka

-see handout/ hardcopy -

- Certificates

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June 2003

No 19

Germanischer Lloyd

## International Convention for the Prevention of Pollution from Ships

### MARPOL 73 / 78

Annex I	Annex II	Annex III	Annex IV	Annex V	Annex VI
Oil In force 2 Oct 1982	Noxious Liquid Substances in Bulk In force 1 July 1997	Harmful Substances in Packaged Form In force 1 July 1997	Sewage In force 1 Oct 2002	Garbage In force 11 Dec 1997	Exhaust Gases Not in force
IOPP Certificate Oil Record book SOPEP Various forms for DDM, CCW, CBT	Certificate of Fitness or NLS Certificate Garbage record book P + A Manual	No Certificate Special list setting forth the harmful substances (slopover plan)	ISPP Certificate	No Certificate Garbage Management Plan Garbage Record Book	EUAPP Certificate for Engines IAPP Certificate for Ships
Constructional Requirements Requirements for Discharge into and overboard	Constructional Requirements Requirements for Discharge into and overboard	No Constructional Requirements Requirements for Discharge into and overboard	Constructional Requirements Requirements for Discharge to Sea	No Constructional Requirements Requirements for Discharge into and overboard	Constructional Requirements Requirements for Discharge into and overboard
Surveys: • Initial • Annual • Intermediate • Renewal	Surveys: • Initial • Annual • Intermediate • Renewal	Surveys: • Initial • Annual • Intermediate • Renewal	Surveys: • Initial • Annual • Intermediate • Renewal	No Surveys	Surveys: • Initial • Annual • Intermediate • Periodical

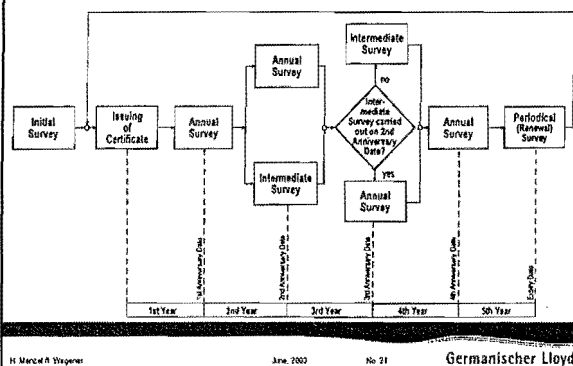
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### MARPOL Surveys Due Dates



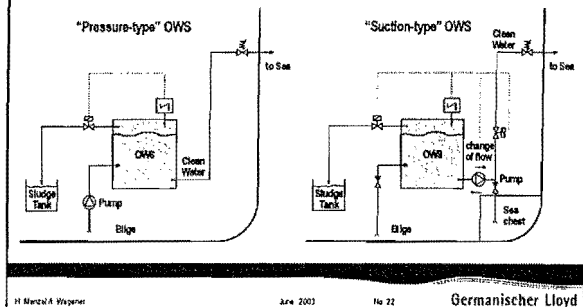
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### Different Types of Oily-Water Separators (OWS)



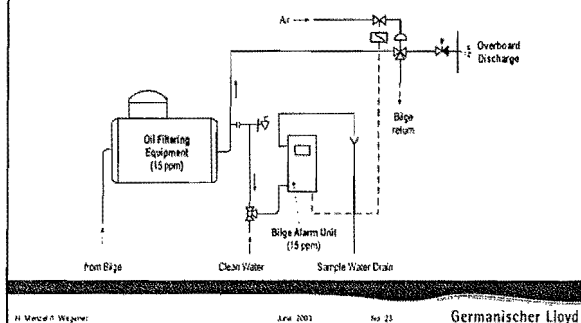
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### MARPOL 73/78, Annex I Typical Arrangement of 15 ppm - Alarm and Automatic Stopping Device



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### International Maritime Organization IMO

- Urgent necessity of establishing a policy on prevention of air pollution from ships
- New: Annex VI to MARPOL 73/78 in 1997
- Role of GL in IMO's environmental issues others than oil and chemicals

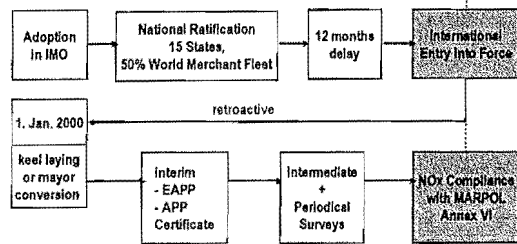
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## Way of Implementation of MARPOL, Annex VI



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## Marpol 73/78, Annex VI, Reg 13 & NOx Code

applies to:

- Each marine diesel engine with a power output greater than 130kW
- Installed on ships constructed on or after January 1<sup>st</sup>, 2000

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## Urgent recommendation regardless of the expected enforcement

- **for shipyards**  
to comply with the requirements of MARPOL Annex VI for all newbuildings of ships
- **for Manufacturers of Diesel Engines**  
to supply to Shipping/Shipbuilding Industry Engines which are certified to comply with the requirements of MARPOL, Annex VI

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- **for Shipowners**  
to request from Classification Societies Interim Certificates as statements of compliance with MARPOL, Annex VI for all ships with keel laying dates on or after 1st Jan. 2000, for re-engining of ships or modifications of engine which fall under the major conversion clause

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- Regulation 12: Ozone-depleting substances, i.e. hydrochlorofluorocarbons (HCFs)
- Regulation 13: Nitrogen oxides (NO<sub>x</sub>)
- Regulation 14: Sulphur oxides (SO<sub>x</sub>)
- Regulation 15: Volatile organic compounds (VOC), tankers only
- Regulation 16: Shipboard incineration
- Regulation 18: Fuel oil quality

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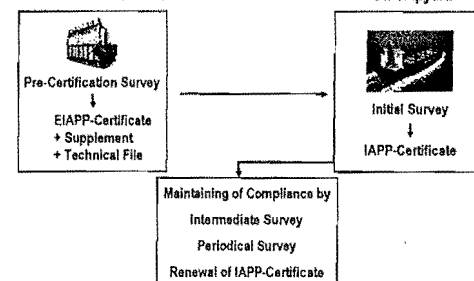
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## Procedure of Certification for MARPOL, Annex VI

In Manufacturer's works

On Shipyard



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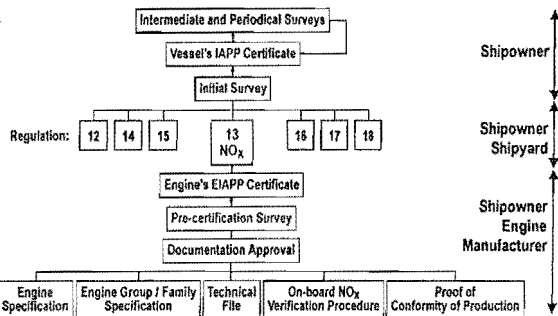
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## MARPOL 73/78, Annex VI



Shipowner

Shipowner  
Shipyard

Shipowner  
Engine  
Manufacturer

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## Surveys aboard Ship

### Initial Survey

- check EIAPP-Certificate and supplement
- verify compliance with record of construction
- survey according to the approved technical file the „On Board NO<sub>x</sub> Verification Procedure“

### Annual or unscheduled Survey (not yet specified)

### Intermediate Survey

2 1/2 years ± 6 months before anniversary date of IAPP-Certificate

- check IAPP-Certificate
- check modification, if any, according to the technical file
- survey according to the approved technical file the „On Board NO<sub>x</sub> Verification Procedure“

### Periodical Survey (renewal)

Expiration Date of IAPP-Certificate - 3 months

- check IAPP-Certificate
- check modification, if any, according to the technical file
- survey according to the approved technical file the „On Board NO<sub>x</sub> Verification Procedure“

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## EIAPP Certificate

Engine International Air Pollution Prevention Certificate

### Supplemented by

- Record of Construction
- Technical File
- Means of Verification

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## National Register of Shipping

- Article 94 of United Nations Convention on the Law of the Sea (UNCLOS) requires Duties of the Flag State in particular ...
- In Germany every sea going ship of more than 15 m with its owner living in Germany has to be registered in the National Register of Shipping( First Register)
- second Register of Shipping (ISR) exists in Germany for ships engaged in international voyages.
- German owner may change the flag for a limited time of two years.( Bare-Boat-Charter)

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*Thank you for your attention*

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## **EVIDENCE GATHERING & DOCUMENTATION**

**JOHN ØSTERGAARD**

SENIOR ADVISER ON MARINE POLLUTION

INTERNATIONAL MARITIME ORGANIZATION

## **STEPS IN EVIDENCE GATHERING**

1. RECEIVED REPORT OF A SPILL IN VIOLATION OF NATIONAL OR INTERNATIONAL REQUIREMENTS.
2. ASSESS THE SITUATION
3. ACTIVATE THE NATIONAL CONTINGENCY PLAN (as appropriate)
4. CONSIDER GATHERING OF EVIDENCES
5. PREPARE DOCUMENTATION FOR NATIONAL COURT CASE OR FOR SUBMISSION TO SHIP'S FLAG STATE
6. REPORT AS APPROPRIATE.

## **RECEIVED REPORT OF A SPILL**

### **SOURCES OF SPILL REPORTS**

- From the master of ship who have caused a spill or from a ship that have observed a spill
- From coastal radio stations
- From air traffic control centres
- From a harbour master
- From the police
- From the public
- From any other source

## **ACTIVATE THE NATIONAL CONTINGENCY PLAN (as appropriate)**

- Is the reported spill so serious that it need any kind of response at local or national level.
- If yes, activate what ever contingency is necessary
- Consider the legal aspects of the spill, is it a spill in violation of national or international discharge criteria?

## **CONSIDER GATHERING OF EVIDENCES**

Where has the spill taken place?

- In port or terminal?
  - from a ship or from land based source
- Inside the territorial sea
- Outside the territorial sea or EZ

## **CONSIDER GATHERING OF EVIDENCES**

Where has the spill taken place?

In port or terminal?  
from a ship or from land based source?

Investigate and gather evidences with assistance from Maritime Authorities and the Police

### CONSIDER GATHERING OF EVIDENCES

Where has the spill taken place?

Inside the territorial sea?

Is the polluter en route to a port or terminal of your country or is the ship in transit to a port outside your country?

Nationality of ship?

### CONSIDER GATHERING OF EVIDENCES

The polluter en route to a port or terminal of your country

- Collect evidences at sea (samples of the spill, photo evidences, electronic evidences and whiteness).
- Investigate further and collect additional evidences, assisted by Maritime Authority and Police upon arrival.

### CONSIDER GATHERING OF EVIDENCES

The polluter in transit to a foreign port or terminal Flying the flag of your own Country?

- Collect evidences at sea (samples of the spill, photo evidences, electronic evidences and whiteness).
- Request Maritime Authority in port of arrival to investigate further and to collect additional evidences and to return such evidences.
- Prepare prosecution of ship

### CONSIDER GATHERING OF EVIDENCES

The polluter in transit to a foreign port or terminal – foreign flag ship

- Collect evidences at sea (samples of the spill, photo evidences, electronic evidences and whiteness).
- Request Maritime Authorities at port of arrival (if known) to investigate further and collect additional evidences,
- Submit collected evidences to Authorities of port of arrival and to flag State of ship.

### PURPOSE OF EVIDENCE GATHERING

- PHOTOGRAPHY AND SAMPLES ARE ESSENTIAL TOOLS IN IDENTIFYING THE SOURCE OF DISCHARGE
- SUPPORT THE COST RECOVERY AND LITIGATION PROCESS
- PHOTOS AND SAMPLES CAN DOCUMENT THE NATURE, SOURCE AND QUANTITY OF SPILLED MATERIAL.

### PURPOSE OF SAMPLING

- Match sample from polluted area with sample from source (ship)
- One (1) match tends to indicate the source of pollution
- Objective of sampling and analysis is TO PROVE that the substance is a pollutant discharged by the source.

## PURPOSE OF GATHERING EVIDENCES

- Cost Recovery
- Civil Penalty
  - Samples link spilled oil to suspected source
  - Photos showing flow of oil from source to water
  - Spill violation report written up
- Criminal Penalty/charge against owner
  - Statements from personnel – proper procedures
  - Proper authority conducting investigation
  - Evidence gathered by proper rules of evidences

## LOCATION FOR SAMPLING

- Suspected source (ship/shore/pipeline)
- Sample from unpolluted or clear water
- Sample(s) from polluted area/waters

## GOOD PHOTO EVIDENCE

- Photographs collaborate visual observations and can add a higher level of veracity to a written report
- Choice of cameras (automatic with Single Lens Reflex (SLR))
- Choice of film (35 mm; 25 ASA slide)

## ANALYTICAL METHODS IDENTIFICATION SYSTEMS

- Reference: The NORDTEST oil spill identification system is a procedure for identifying waterborne oils.
- (Nordtest Method – NT CHEM 001)
- Recommended identification system in use in most European Countries)

## ANNEX I of MARPOL 73/78

- REGULATION 15 (Oil pollution equipment on board oil tankers)
- Oil discharge monitoring and control systems
- Cargo tanks cleaning means and slop tanks with sufficient capacity for all generated washings, oil residues and dirty ballast

## ANNEX I of MARPOL 73/78

- REGULATION 16 (Oil pollution equipment on board ships which do not carry oil as cargo)
- Oil discharge monitoring and control systems for oily bilge water

### ANNEX I of MARPOL 73/78

- Applicable discharge regulations for oil tankers of all sizes outside a special area:
- >50 nm from the nearest coast
- The tanker is proceeding on route
- <30 litres per NM
- Max quantity: 1/15,000 existing tankers
- Max quantity: 1/30,000 new (31/12-1979)

### ANNEX I of MARPOL 73/78

- Applicable discharge regulations for SHIPS of less than 400 GRT **OTHER THAN** oil tankers outside a SPECIAL AREA (from machinery spaces):
- not exceed 15 PPM
- En route
- Oil filtering equipment in operation.

### OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- Visual observations can be made:
  - From aircraft and helicopters;
  - From ships in the vicinity
  - By land-based observers
- Remote sensing can be made:
  - From aircraft and satellites

### OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

- Visual observations – conclusions (discharge from machinery spaces):
- No discharge with an oil content of 15 PPM or below has ever been detected;
- Discharges between 50 and 100 PPM have been visible under special conditions (high discharge rate, low ship speed, low wind speed and almost calm sea)

### OBSERVATIONS AS EVIDENCE OF VIOLATION OF MARPOL 73/78

Remote sensing:	Capabilities and use
Spill detection	SLAR or visual
Spill/Source investigation	IR/UV, MWR, visual LLTT, ULLIS, video
Spill identification	LFS or visual
Documentation	All means

### GATHERING AND PRESENTING EVIDENCE OF VIOLATION

- Evidence of violation should be presented in an official report in compliance with national legislation.
- If possible additional or supporting evidence should be collected.
- Supporting evidence could be reports from inspection on board the violating ship, samples of the spill or statement by witness

**INTERNATIONAL CO-OPERATION  
IN THE FIELD OF PROSECUTING  
ILLEGAL MARITIME POLLUTERS**

- Article 6 of MARPOL 73/78 contains the obligation of Parties acting as Flag State, Port State or Coastal State, to co-operate in the detection of violations and the enforcement of the provisions of the Convention, using all appropriate and practical measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence


**INTERNATIONAL CO-OPERATION  
IN THE FIELD OF PROSECUTING  
ILLEGAL MARITIME POLLUTERS**

- Article 4 of MARPOL 73/78 states that any violation of discharge regulations (or other MARPOL requirements) shall be an offence under the law of the Flag State wherever the violation occurs.
- Articles 5 and 6 provides that a ship is subject to Port State control for verification of a discharge violation.

**INTERNATIONAL CO-OPERATION  
IN THE FIELD OF PROSECUTING  
ILLEGAL MARITIME POLLUTERS**

- Similar requirements is set out in UNCLOS and in The Memorandum of Understanding on Port State Control around the world.
- It is an obligation of each Party to MARPOL 73/78, UNCLOS and MoU that the national legislation is in conformity with these obligations






### 1. Need for reminding States Parties of their obligations

Under the United Nations Convention on the Law of the Sea (UNCLOS), 1982

Articles:

- > 192
- > 194
- > 211(2)

1 Assessment of Reception Facilities




### 1. Need for reminding States Parties of their obligations

Under the MARPOL 73/78 Convention

- 1. Reg. 12 of Annex I
- 2. Reg. 7 of Annex II
- 3. Reg. 7 of Annex V
- 4. Reg. 10 of Annex IV (enters into force on 27 September 2003)
- 5. Reg. 17 of Annex VI (is not yet in force)

2 Assessment of Reception Facilities




### 2. Responsibility

- ✓ States Parties to MARPOL 73/78 have undertaken to ensure the provisions of adequate waste reception facilities in their ports.
- ✓ Most States have delegated this duty to their port industry or to other public or private bodies.

**But**


3 Assessment of Reception Facilities



### 2. Responsibility

States retain the ultimate responsibility for ensuring that their undertaking is fulfilled in accordance with the Assembly Resolution A.896 (21)


4 Assessment of Reception Facilities



### 3. Operational needs

Port Administration working in concert with actual providers (e.g. private contractors) of port waste reception facilities shall ensure that an effective prior notification and monitoring arrangement is in place and are suitable explained to all ships (and their agents) prior to port entry.

5 Assessment of Reception Facilities



### 4. Planning a Port Waste Refac, its Type and Capacity

The IMO has agreed that:

*"To achieve adequacy the port should have regard to the operational needs of users and provide reception facilities for the types and quantities of wastes from ships normally using the port."*

6 Assessment of Reception Facilities





#### 4. Planning a Port Waste Refac, its Type and Capacity

**The mere provision of facilities, which are not then fully utilized, does not mean they are adequate.**

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

**Factors which deter the use of reception facilities are:**

- poor location,
- complicated procedures,
- restricted availability, and
- unreasonably high costs for the service provided.

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

**Ports can not provide adequate facilities for users without an accurate assessment of the need of them.**

**The most effective method for that is a consultative process.**

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

**Parties involved:**

- port authorities,
- port operators,
- ship operators,
- ship agents,
- waste contractors,
- users (needs may vary),
- various Government agencies.

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

**Common elements for consideration are:**

- Refacs are available during a ship's visit to the port,
- Refacs do not cause undue delay to ships,
- Refacs are conveniently located and easy to use,
- Refacs cater for all types of waste streams from ships usually entering the port,
- Costs for using the Refacs do not have a deterrent effect.

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

- ❖ **Ports should carry out a periodical review of the facilities to ensure that they continue to meet the needs of the users.**
- ❖ **Ports should consult their national environmental authorities with regard to the final treatment and disposal of the waste delivered ashore.**
- ❖ **Licensing arrangements may be required.**

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Assessment of Reception Facilities



#### 4. Planning a Port Waste Refac, its Type and Capacity

- The appropriate authority should deal with these arrangements.
- Ports should consider the potential human and environmental risk associated with combining different waste streams within the same Refac.
- The waste policy of national environmental authorities should dictate how to handle and contain different waste streams at the port.

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Assessment of Reception Facilities



#### 5. Enforcement and compliance

Flag and port States must be able to demonstrate that they fulfil their obligations according to the Conventions in ensuring that adequacy is complied with, maintained and enforced.

They should do this by ensuring that ship-owners report allegedly inadequate reception facilities using the revised format MEPC/Circ.349.

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Assessment of Reception Facilities



#### 5. Enforcement and compliance

The revised format places an obligation on Flag States:

*"The flag State shall notify the port State of the occurrence."*

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Assessment of Reception Facilities



#### 5. Enforcement and compliance

**States should take the following steps:**

1. Where the flag State and port State are different, the flag State shall inform the port State of the alleged inadequacy and also inform the IMO Secretariat.

Notification should be made as soon as possible following the completion of the Reporting Form (MEPC/Circ.349)

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Assessment of Reception Facilities



#### 5. Enforcement and compliance

2. Where the flag State and the port State are the same, Maritime Administration shall take up the matter of the alleged inadequacy directly with the port or terminal concerned.

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Assessment of Reception Facilities




#### 5. Enforcement and compliance

Port States will need to consider taking measures which ensure that domestic legislation provides suitable powers both to enforce MARPOL and provide suitable powers for the National Administration to prosecute offenders (legal and administrative system) who fail to comply with domestic legislation in implementing the MARPOL 73/78 Convention.

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Assessment of Reception Facilities




### *Finansing. Cost Recovery*

---

**Objective of a cost recovery – to generate a revenue for to cover the operating costs:**

- Capital costs (equipment, land)
- Labour (operation, supervision, administration, training)
- Maintenance, spare parts
- Other consumables (power, chemicals)
- Costs for final disposal of waste
- Revenues of recyclable materials

19 Assessment of Reception Facilities



### *Finansing. Cost Recovery*

---


**Extremes of the cost recovery mechanisms:**

- ✓ The "polluter-pays-principle"
- ✓ Costs shared by society

**Practical cost recovery mechanisms:**

- ❖ The fee system
- ❖ Costs of disposal included in port dues
- ❖ A free of charge system

20 Assessment of Reception Facilities




### *6. Assessment Strategy General*

---

***The Assessment Strategy shall***

1. support the principle of port waste management planning,
2. provide evaluation of existing facilities,
3. provide evaluation of the effectiveness of waste management within the port,

21 Assessment of Reception Facilities




### *6. Assessment Strategy General*

---

4. reveal deficiencies of technical equipment,
5. reveal the skill and praxis of the personnel at all the levels, and
6. reveal the lack of legislative acts and other documentation (laws, bylaws, regulations, instructions, manuals).

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### *6. Assessment Strategy Assessment procedures*

---

1. Collection of information on types and volumes of ships traffic,
2. Collection of information on kinds of waste regularly delivered,
3. Collection of information on technical equipment of current Refacs,

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### *6. Assessment Strategy Assessment procedures*

---

4. Evaluation of developed legislation regulating the provision of port waste Refacs (the main focus on responsibility of the bodies) and provided documentation as follows:
  - ✓ Laws,
  - ✓ Regulations,
  - ✓ Port waste management plans,
  - ✓ Pre-determined waste discharge plans, including prior notification and monitoring arrangements,
  - ✓ Instruction manuals etc.

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## 6. Assessment Strategy

### Assessment procedures

5. Auditing of all levels of port waste management,
6. Evaluation of waste management (through an audit procedure) of the private companies, which rent berths from ports (owned by states and municipalities),
7. Assessment of the legal base and services provided by independent private waste contractors,

25 Assessment of Reception Facilities




## 6. Assessment Strategy

### Assessment procedures

8. Analysis and conclusions with the main focus on
  - whether the State party to MARPOL 73/78 complies with Article 11(1)(d) of the Convention and fulfills its obligations under provisions of Reg.12 of Annex 1, Reg.7 of Annex II, Reg. 7 of Annex V, Reg.10 of Annex IV and Reg.17 of Annex VI;

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## 6. Assessment Strategy

### Assessment procedures

- Whether personnel have satisfying skills to carry out the relevant procedures for the health and safety of the ship/shore personnel and the environment,
- Whether all necessary documentation is in place,

27 Assessment of Reception Facilities




## 6. Assessment Strategy

### Assessment procedures

- Whether technical arrangements and operations are safe for the health and safety of the ship/shore personnel and for the environment,
- To find deficiencies and non-conformities, its' elimination and the terms for that.

28 Assessment of Reception Facilities




## 6. Assessment Strategy

### Audit procedures

1. Questionnaires elaborated for ports (see MEPC 44/5 Annex 2) should be used for the background of the forms and procedures developed by State.
2. The assessment should be conducted by assessors who are experts in the field of environment (marine environment), health and safety.

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## 6. Assessment Strategy

### Audit procedures

3. The auditor (or audit team) should be able to communicate effectively with auditees and conduct the audit according to the auditing plan.

30 Assessment of Reception Facilities



## 6. Assessment Strategy


### Audit procedures

---

**4. The auditor (or audit team) should assess the Refacs on the basis of:**

- Documentation, presented by the port (company, private contractors etc.),
- Objective evidence as to its effective implementation,
- Evidence collected through interviews and examination of documents,

31 Assessment of Reception Facilities




## 6. Assessment Strategy

### Audit procedures

---

- Observation of activities and conditions to ensure that they meet the specific standards of the safety and protection of the environment required by provisions of MARPOL 73/78, regulations, guidelines, codes and standards developed and recommended by the IMO, the WHO and the EU Directives, as well as the other international, national and industry organizations etc.

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## 6. Assessment Strategy

### Audit procedures

---

- Observation of activities and conditions whether they meet the requirements of mandatory national regulations and standards,
- Interviews with personnel involved, which reflect an adequate understanding of relevant rules, regulations, codes and guidelines,

33 Assessment of Reception Facilities




## 6. Assessment Strategy

### Audit procedures

---

- Evaluation of the preparedness for emergency situations and prevention of pollution.

34 Assessment of Reception Facilities



## 6. Assessment Strategy


### Audit procedures

---

**5. Audit observations should be documented and reviewed to determine which of them are to be reported as non-conformities or major non-conformities.**

**6. The audit team (or auditor) should hold a meeting with the senior management and those responsible for the functions concerned with regard to observations in order to ensure that the results of the audit are clearly understood.**

35 Assessment of Reception Facilities



## 6. Assessment Strategy


### Audit procedures

---

**7. An audit report should be submitted.**

The port authority, the port operator and the responsible supervisory national authority should receive a copy of it.

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## 6. Assessment Strategy Audit - Definitions

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**Observations** – means a statement of fact made during an audit and substantiated by objective evidence.

**Objective evidence** – means quantitative or qualitative information, records or statements of fact pertaining to the safety, environmental protection or to the existence and implementation of the requirements.

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Assessment of Reception Facilities




## 6. Assessment Strategy Audit - Definitions

---

**Non-conformity** – means an observed situation where objective evidence indicates non-fulfillment of a specified requirement.

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Assessment of Reception Facilities



## 6. Assessment Strategy Audit - Definitions

---

**Major non-conformity** – means an identifiable deviation which poses a serious threat to personnel or ship or Refac's safety, or a serious risk to the environment and requires immediate corrective action.

The lack of effective and systematic implementation of the requirements of international or national standards, regulations, and codes is also considered as a major non-conformity.

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Assessment of Reception Facilities



MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**Regional Workshop on National  
MARPOL 73/78  
Implementation and Enforcement**

**Airborne  
Surveillance System**

**Session 12**

Bundesministerium  
für Verkehr, Bau-  
und Wohnungswesen

German Federal Institute of Hydrology  
Department Physics, Instruments and Measurements  
Dr. O. Tieschmann

Slide - 1 -

MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**Overview**

- Introduction
- The sensor network and data products
- Data assimilation and fusion
- Interaction with satellite oil spill monitoring
- Conclusion

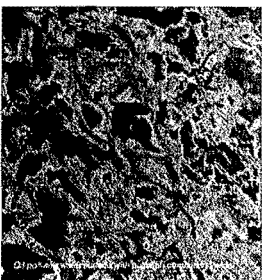
German Federal Institute of Hydrology  
Department Physics, Instruments and Measurements  
Dr. O. Tieschmann

Slide - 2 -

MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**Constraints**

**on the aerial surveillance for pollution of the North sea and Baltic sea**



- Narrow shipping routes
- Busy with ship traffic
- Strongly polluted littoral
- Surveillance area 115.000 km<sup>2</sup>
- Frequent bad weather situations
- Watten sea
- Wide tidal range

German Federal Institute of Hydrology  
Department Physics, Instruments and Measurements  
Dr. O. Tieschmann

Slide - 3 -

MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**The aim of the German aerial surveillance**

- Surveillance of the North Sea and Baltic Sea independent of weather and daytime situation and visibility.
- Flight operation 24 hours / permanent operation / extended spatial coverage of sea areas.
- Verification and validation of pollution including the collection of evidence by optical and electronic means.
- Co-ordination and optimisation of operation during oil spill combat campaigns.
- Determination of organic material in coastal waters, such as
  - algae (phytoplankton) and
  - dissolved organic matter

German Federal Institute of Hydrology  
Department Physics, Instruments and Measurements  
Dr. O. Tieschmann

Slide - 4 -

MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**Tasks:**

Regular surveillance of the North Sea and the Baltic Sea, including coastal waters, for pollution, in particular oil pollution.  
Surveillance as far as possible regardless of visibility.  
To have an deterrent effect the operating schedules are continuously changed.  
Verification of reported pollution.  
Securing evidence against polluters by locating the pollution, determining its extent, and identifying its origin.  
Co-ordination of the operation of ships used for combating oil pollution.  
In order to use these ships effectively it is necessary to direct them to large oil slicks with the greatest layer thickness.

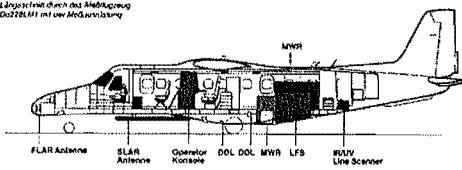
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Department Physics, Instruments and Measurements  
Dr. O. Tieschmann

Slide - 5 -

MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

**Aircraft - Do228LM**

Längsschnitt durch das Aufklärungs-  
Gerät Do228LM mit der Aufklärungs-  
einrichtung



- FLAR Antenne
- SLAR Antenne
- Operator Konsole
- DOL DOL MWR
- LFS
- IRUV Line Scanner

- SLAR: Side Looking Airborne Radar
- IRUV-Line Scanner
- MWR: Microwave Radiometer
- LFS: Laser-fluoro Sensor
- Infrared Camera System
- Optical sensors (camera, TV, video)
- IT network MEDUSA (data processor sensor, main computer, data display console, photo printer)
- Navigation data display
- Data transfer systems (DDL or Satlink)
- HF, VHF, UHF, marine radio and GPS

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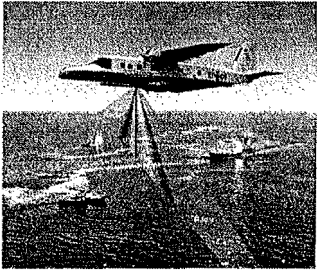
Slide - 6 -



MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

### Overview of the sensors on board the Do228LM

- **Wide-range sensor**  
(Line-scanner:  $\pm 30$  km)  
– Sideward Looking Airborne Radar (SLAR)
- **Narrow-range sensors**  
(Line-scanner: ca.  $\pm 250$  m)  
– Infrared/Ultraviolet Scanner (IR/UV)  
– Microwave-Radiometer (MWR)  
– Laser-Fluoro Sensor (LFS)
- Forward Looking Infrared Camera (FLIR)
- Satellite Communication via Inmarsat



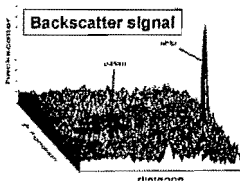
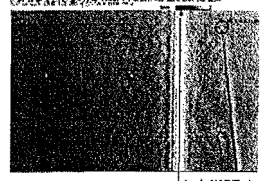
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### Sideward looking airborne radar - SLAR

- X-band-waves (ca. 10 GHz) are back-scattered by ships and by white crest of the sea surface.
- Thin oil layers smoothen the sea surface roughness and prevent a back-scattered radar signal.
- The presence of oil film can be concluded from the absence of back-scatter signal in distances up to 30 km.

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### IR-Scanner

- The IR-channel is relying on the thermal emission of the sea surface.
- The lower emissivity of oil lets the oil layer be colder than the water surface.
- However: oil films of thickness  $> 0.5$  mm absorbs sunlight, so that the temperature increases and the oil layer appears warmer than the surrounding water.
- The IR-channel is independent from daylight and is therefore also operating at night.

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### UV-Scanner

- The UV-channel determines the reflected sun-light at the sea surface.
- Very thin oil films of less than 0.1 mm can be determined due to the short wavelength of the UV.
- The measurements are limited to daylight conditions and to a sufficient visibility.

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### Microwave-Radiometer (MWR)

**Principle:**

- Interferences between the boundary layers oil/air and oil/water permit oil layer thickness determination between 50mm to the mm range.
- Capturing of the sea surface by line scanning.
- Simultaneous measurements of multiple frequencies prevent ambiguousness of the layer thickness.
- Low penetration of microwave in water restricts measurements on surface layers.

**Advantage:**

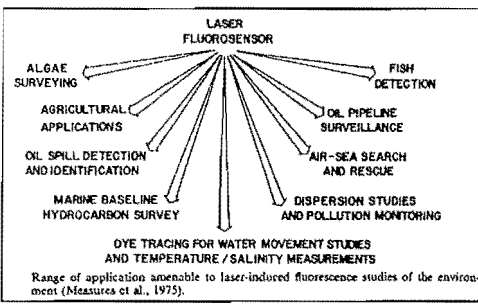
- Insensitive to water vapour
- Day and night operability by analysing the thermal microwave radiation
- Simultaneous detection of atmospheric radiation for calibration (particularly for rain and rain clouds).

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### Laser-Fluoro Sensor (LFS)



Range of application amenable to laser-induced fluorescence studies of the environment (Measures et al., 1975).

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**Laser-Fluoro Sensor (LFS)**

- Determination of oil layer thickness within 0,1 to 20 mm,
- Identification and classification of the oil types by means of a number of oil classes,
- to prevent false alarms: discrimination of natural oil alike substances on the sea surface and of mineral oil,
- Detection of oil quantities below the water surface.

And:

- Concentration of algae by chlorophyll fluorescence e.g. for forecasting of algae blooms,
- Concentration of fulvic acid ("Gelbstoff"),
- Extinction of water

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**Fusion of the sensor data - A**

Determination of the oil layer thickness  
thick --> thin

Determination of the oil layer extension

classification, thickness of layer

18 Ghz 35 Ghz 85 Ghz IR UV IR UV LFS

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**Fusion of the sensor data - B**

	SLAR	LV	IR	MWR	LFS
Range	wide	narrow	narrow	narrow	narrow
Classification capabilities	no	no	no	no	yes
sensitivity on oil film thickness	N.A.	>0,1µm	>10µm	50µm to 2.5mm	0.1 µm to 20 µm
Horizontal range from nadir @300m flight altitude	±300m	±250m	±250m	±250m	±75m
Spatial resolution	10m (flight track) 75m (perp.)	3.5m	3.5m	>5 m	10m pixel-to-pixel distance
Detection of oil spills underneath the surface	no	no	no	no	yes
Operation at night	yes	no	yes	yes	yes
Film thickness determination	no	no	no	yes, 50µm to 2.5mm	yes, 0.1 µm to 20 µm
Measuring geometry	Line-by-line	Line-by-line, 1600ft	Line-by-line, 1600ft	Line-by-line, 200ft	Conical, 5ftz (200ft max.)
Impaired by	no	clouds	clouds	no	clouds, flight altitude

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**Spatial coverage of the North-Sea and the Baltic-Sea**

10<sup>4</sup> spills per km<sup>2</sup> per flight  
0 - 0.006  
0.006 - 0.023  
0.023 - 0.04  
0.04 - 0.057  
0.057 - 0.075

Kilometers  
0 50

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**Potential of the fusion of airborne and satellite data**

Airborne:	Satellite:
+ High spatial resolution	+ Large-scale aerial coverage
+ Ground truth capability	+ Provides alert functionality
+ Classification of oil species	+ 24 hours operation
+ Determination of layer thickness	+ Independent of weather condition
+ Evidence ensuring	+ monitoring of shipping routes
+ Commandable	- Low repetition rate or high number of satellites needed
- Low spatial coverage	- Lower spatial resolution

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MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003

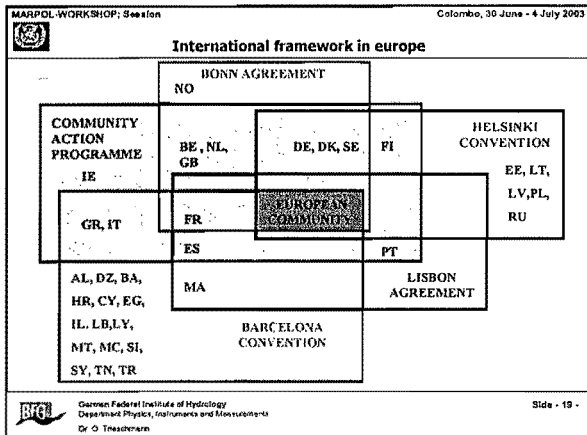
**Surveillance statistics from since project start (1986)**

Total number of flights:	4872
Pollution cases:	2625
Convicted polluters:	275
Total flight hours:	14996

November 2000

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### Conclusions and outlook

The aim of the airborne surveillance is fulfilled.

Open for co-operation with space agencies for integrating satellite data into the surveillance system.

**Future:**

- Absolute calibration of the sensors
- Development of an automated operation for classification and quantification of oil species and chemicals
- Extension of detectable quantities
- Flight plan optimisation by space based oil spill surveillance

**Encouraging to use airborne surveillance data for:**

- Multi-purpose-usage (transport monitoring, biology, hydrology)
- Satellite ground truth measurements

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MARPOL-WORKSHOP; Session Colombo, 30 June - 4 July 2003


### Airborne Surveillance System for Identification of marine Pollution

The surveillance system provides for the detection and analysis of pollution and operational control of the pollution response vessels operated by the Federal Ministry of Transport, Building and Housing.

Thank you for your attention

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### Anti-Fouling Systems

**Anti-Fouling Systems for Ships based on the use of biocides: compounds of Pb (lead), Sn (tin), Cu (copper) and Zn (zinc)**


**International Convention on the Control of Harmful Anti-fouling Systems for Ships, 2001 (the AFS Convention)**



### Anti-Fouling Systems

**The matter of urgency for IMO to develop:**

1. **Guidelines for brief sampling of ships anti-fouling systems (the draft exists)**
2. **Guidelines for inspection of ships anti-fouling systems**
3. **Guidelines for survey and certification of ships anti-fouling systems (the draft exists)**




### Anti-Fouling Systems

**Prohibited under the AFS Convention:**  
organotin compounds - biocides

**But what about non-biocides mono- and dibutyl tins?**

**It is not stated specifically that TBT (tributyl tin) is excluded from the lists of biocidal components**



### Anti-Fouling Systems

❖ **Organotin compounds which act as biocides are triorganotin compounds.**  
**Concentration: at 50,000 mg/kg in the dry paint film (measured as Tin)**

❖ **Organotin compounds which act as catalysts carry one or two alkyl groups (mono, dibutyl, dioctyl tin compounds)**  
**Concentration: below 2,500 mg/kg in the dry paint film (measured as Tin)**





## Ballast Water

**Harmful Aquatic Organisms in Ballast Water and sediments**

or

**Non-indigenous Species**

or

**Unwanted Aquatic Organisms and Species**

or

**Unwanted Aquatic Organisms and Pathogens**



## Ballast Water

### ❖ UNCLOS (1982) - Article 196(1)

"States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the international or accidental introduction of species, alien or new..."

❖ **1992 Convention on Biological Diversity**  
Conservation and sustainable use of marine and coastal ecosystems.



## Ballast Water

### ❖ IMO Assembly resolutions

A.774(18) in 1993 and A.868(20) in 1997

**Transfer of harmful aquatic organisms and pathogens causes injury or damage to the environment, human health, property and resources.**

**The Diplomatic Conference**

to be held early 2004



## Ballast Water

### **Draft International Convention for the Control and Management of Ships' Ballast Water and Sediments**

(source text MEPC 48/21, Annex 2 as amended in the Drafting Group on 4 March 2003, MEPC-IBWWG 2/WP.1)

This issue demands action based on globally applicable regulations together with the guidelines for their effective implementation and uniform interpretation!



## Ballast Water

**Draft International Convention for the  
Control and Management of Ships'  
Ballast Water and Sediments**  
comprises

22 Articles

1 Annex

2 Appendices



## Ballast Water

Article 5 Sediment ReFacs

Article 6 Scientific and Technical Research  
and Monitoring

Includes observation, measurement, sampling,  
evaluation and analysis of the effectiveness and  
adverse impacts of any technology or methodology

Article 7 Survey and Certification



## Ballast Water

### Article 9 Inspection of Ships

Validity of the Certificate, BWM Record Book, a sampling of the BW (Guidelines to be developed), Detailed Inspection (if needed), BWM Plan, approved by the Administration.

### Article 10 Detection of Violations and Control of Ships

### Article 11 Regional Co-operation



## Ballast Water

### Draft International Convention

#### Annex

Regulations for the Control and Management of Ships' Ballast Water and Sediments to Prevent, Reduce and Eliminate the Transfer of Harmful Aquatic Organisms and Pathogens



## Ballast Water

#### Annex

#### Section A General Provisions

#### Section B Management and Control Requirements for Ships

#### Section C Special Requirements in Certain Areas

#### Section D Special Areas

#### Section E Standards for Ballast Water Management

#### Section F Survey and Certificate Requirements for Ballast Water Management



## Ballast Water

#### Appendix I

Form of International Ballast Water Management Certificate (+ Endorsement of Survey(s))

#### Appendix II

Form of Ballast Water Record Book

(+ Record of Ballast Water Operations consisting of Record Book Code and Item Numbers)



## Ballast Water

### Appendix II. Record of BW Operations

(A) Ballast uptake

(B) Ballast discharge

(C) Ballast discharged at an approved shore based ballast water reception facility

(D) Accidental or other exceptional discharges of ballast water

(E) Additional operational procedures and general remarks



## Ballast Water

#### Example

Date	Code	Item	Record of operations	Sign. of officers in charge
1/15/00	C	1	1845	J. Smith
		2	Port of L. Angeles	
		3	1000 m <sup>3</sup>	

Ballast Water				
Example				
Date	Code	Item	Record of operations	Sign. of officers in charge
1/18/00	B	1	Yes	
		1.1	Separation, UV	
		1.2	1100 m <sup>3</sup>	
		3	Forepeak, aftpeak, 5 P wing	
		4	1125	
		5	Port of New Orleans	
		6	1200 m <sup>3</sup>	K. Long

Ballast Water	
<ul style="list-style-type: none"> <li>MEPC 48/INF.6 (26 June 2002 )</li> </ul>	
Agenda item 2. Harmful Aquatic Organisms in BW Treatment and Management of Ships' Ballast Water to Control Introduction of Non-indigenous Species: Advice by GESAMP	
<input type="checkbox"/> MEPC 48/2/6	
Agenda item 2. Harmful Aquatic Organisms in BW Ballast Water Standards and Technology	

Ballast Water	
MEPC 48/INF.6	
<ul style="list-style-type: none"> <li>Treatment (positive and negative attributes)               <ul style="list-style-type: none"> <li>Heat</li> <li>Biocides – general</li> <li>Separation technologies (filters, hydrocyclones)</li> <li>UV radiation</li> <li>Deoxygenating</li> <li>Ozonation</li> <li>Ultrasound</li> </ul> </li> </ul>	

Ballast Water	
MEPC 48/INF.6	
<ul style="list-style-type: none"> <li>Comparison of potential costs and benefits of various BW management/treatment methods</li> <li>Waste disposal</li> <li>Consideration in selecting and using biocides to control marine organisms in BW</li> <li>Ecological considerations</li> <li>Health and safety considerations</li> <li>Management requirements</li> </ul>	





### Ballast Water

---

**Harmful Aquatic Organisms in Ballast Water and sediments**  
or  
**Non-indigenous Species**  
or  
**Unwanted Aquatic Organisms and Species**  
or  
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### Ballast Water

---

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---


**Draft International Convention for the Control and Management of Ships' Ballast Water and Sediments**  
comprises

**22 Articles**  
**1 Annex**  
**2 Appendices**

### Ballast Water

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**Article 5 Sediment ReFacs**  
**Article 6 Scientific and Technical Research and Monitoring**  
**Includes observation, measurement, sampling, evaluation and analysis of the effectiveness and adverse impacts of any technology or methodology**  
**Article 7 Survey and Certification**




## Ballast Water

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**Validity of the Certificate, BWM Record Book, a sampling of the BW (Guidelines to be developed), Detailed Inspection (if needed), BWM Plan, approved by the Administration.**

**Article 10    Detection of Violations and Control of Ships**

**Article 11    Regional Co-operation**




## Ballast Water

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### Draft International Convention

#### Annex

Regulations for the Control and Management of Ships' Ballast Water and Sediments to Prevent, Reduce and Eliminate the Transfer of Harmful Aquatic Organisms and Pathogens



## Ballast Water

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#### Annex

**Section A    General Provisions**


**Section B    Management and Control Requirements for Ships**

**Section C    Special Requirements in Certain Areas**

**Section D    Special Areas**

**Section E    Standards for Ballast Water Management**

**Section F    Survey and Certificate Requirements for Ballast Water Management**



## Ballast Water


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#### Appendix I

**Form of International Ballast Water Management Certificate (+ Endorsement of Survey(s))**

#### Appendix II

**Form of Ballast Water Record Book (+ Record of Ballast Water Operations consisting of Record Book Code and Item Numbers)**



## Ballast Water

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#### Appendix II.    Record of BW Operations


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---

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## Ballast Water

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## Ballast Water

- MEPC 48/INF.6 (26 June 2002 )

Agenda item 2. Harmful Aquatic Organisms in BW  
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Water to Control Introduction of Non-  
indigenous Species: Advice by GESAMP

- ☐ MEPC 48/2/6

Agenda item 2. Harmful Aquatic Organisms in BW  
Ballast Water Standards and Technology



## Ballast Water

### MEPC 48/INF.6

- Treatment (positive and negative attributes)
  - ❖ Heat
  - ❖ Biocides – general
  - ❖ Separation technologies (filters, hydrocyclones)
  - ❖ UV radiation
  - ❖ Deoxygenating
  - ❖ Ozonation
  - ❖ Ultrasound




## Ballast Water

### MEPC 48/INF.6

- Comparison of potential costs and benefits of various BW management/treatment methods
- Waste disposal
- Consideration in selecting and using biocides to control marine organisms in BW
- Ecological considerations
- Health and safety considerations
- Management requirements






### SAs and PSSAs

---

**Assembly resolution A.927(22) amalgamates and supersedes A.720(17) and A.885(21) provides**

**Guidelines for the Designation of Special Areas under MARPOL 73/78 and Guidelines for the Identification and Protection of Particularly Sensitive Sea Areas**




### Special Area

---

**Resolution A.927(22) requires:**

1. **Oceanographic conditions**
2. **Ecological characteristics**
3. **Social and economical value**
4. **Scientific and cultural significance**




### Special Area

---

**Resolution A.927(22) requires:**


5. **Environmental pressures**
6. **Vessel traffic characteristics**
7. **Measures already taken to protect the environment**



### Special Area

---

**Vessel traffic characteristics**  
**Shipping movements should be quantified and traffic analysis carried out**  
 (oil tankers, chemical tankers, other ships, ship-generated waste disposal and processing, cargo residues, bunkering, availability of port waste reception facilities, ballast operations)




### PSSA

---

**Before proceeding to IMO a determination must be made:**

**Threat primarily caused by**

- ❖ domestic shipping (domestic law)
- ❖ International shipping




### PSSA

---

**3 categories of threats to the marine environment from international shipping**

1. **Impacts from accidents**
2. **Operational discharges**
3. **Physical damage to marine habitats or organisms**




### PSSA

---

Required elements for a PSSA application

- Summary of the proposal
- Description of the area
- Significance of the area  
(Criteria: ecological, socio-economic, scientific)
- Vulnerability of the area to damage by International shipping activities



### PSSA

---

Required elements for a PSSA application

- Associated Protective Measures (APMs)
  1. Types of Measures
  2. Categories of Ships
  3. Impact on Navigation
- Miscellaneous Issues

**REGIONAL CO-OPERATION  
IN THE SOUTH ASIAN SEA  
REGION**

John Østergaard  
INTERNATIONAL MARITIME  
ORGANIZATION

**SOUTH ASIA REGION**

**The Action Plan for the South Asia Seas**  
(Adopted in New Delhi, India in March 1995)

The Action Plan is based on the UNEP Regional Seas concept and agreed, *inter alia*, to develop and implement **National and Regional Oil Spill Contingency Plans**

**SOUTH ASIA REGION**

**Draft Regional Oil and Chemical Marine  
Pollution Contingency Plan for South Asia**  
(Approved by the High Level Meeting held in  
Colombo, Sri Lanka, 4 to 6 December 2000)

**Geographical coverage:** The EEZ or pollution zone, the territorial sea and inland waters under the jurisdiction of the Parties concerned.

**SOUTH ASIA REGION**

**DRAFT MEMORANDUM OF  
UNDERSTANDING (MoU) FOR CO-  
OPERATION ON THE RESPONSE TO  
MARINE OIL AND CHEMICAL SPILLS IN  
THE SOUTH ASIA REGION**

(Approved by the High Level Meeting held in  
Colombo, Sri Lanka, 4 – 6 December 2000)

**SOUTH ASIA REGION**

**DRAFT MoU**

Paragraph 1: General Provisions

1.1 The Parties agree, subject to their capabilities and availabilities of resources, to co-operate in responding to major marine pollution incidents occurring in their EEZ, territorial seas and internal waters, which are effected or likely to affect the marine environment, the coastal or related interests of one or more Parties

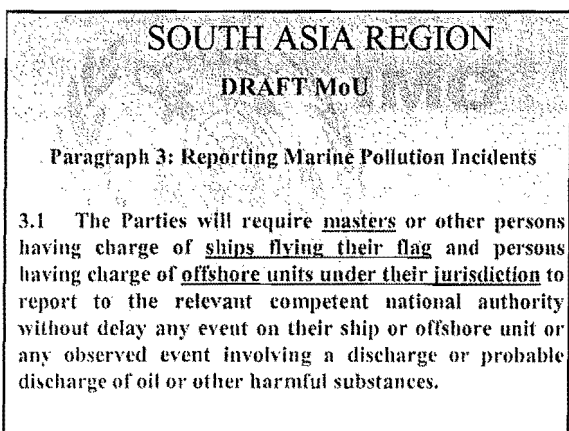
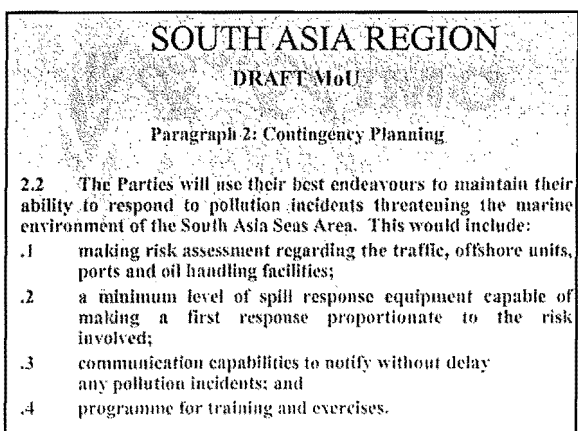
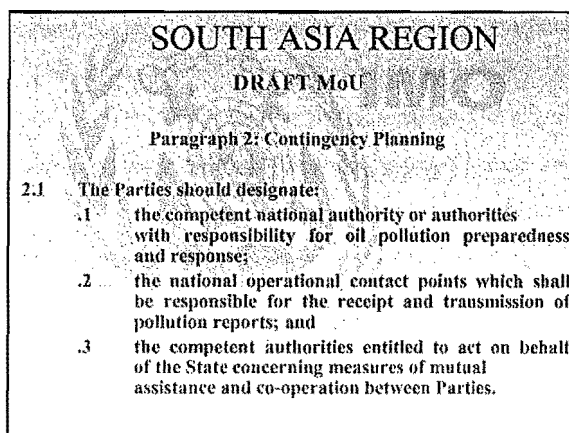
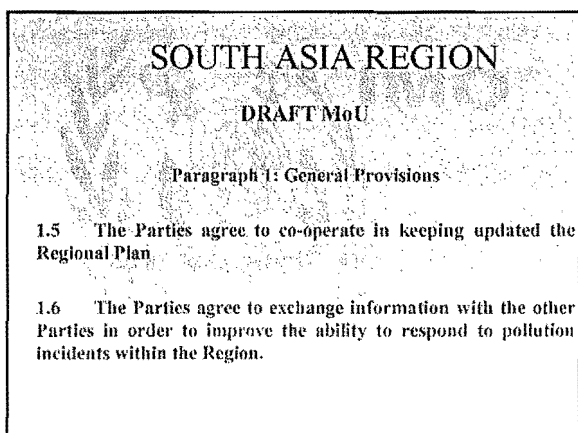
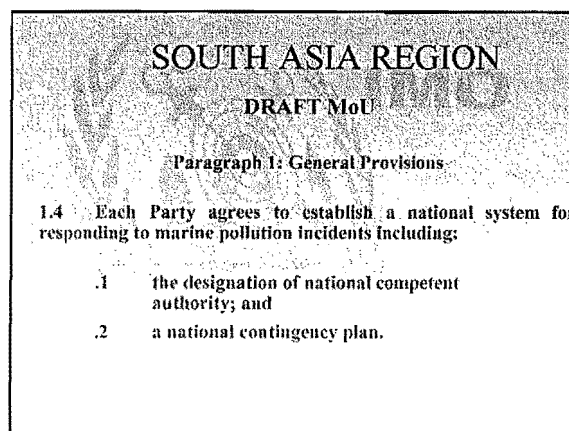
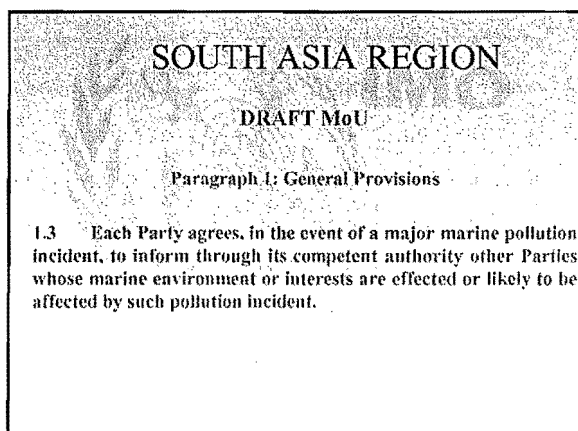
**SOUTH ASIA REGION**

**DRAFT MoU**

Paragraph 1: General Provisions

1.2 The Parties to this MoU adopt the "Regional Oil and Chemical Contingency Plan for South Asia" (hereinafter referred to as "the Regional Plan") attached to this MoU and which constitutes an integral part of the MoU. Each Party will give effect to the provisions of the Regional Plan. In cases of major marine pollution incidents the Parties will co-operate, taking individually and jointly, the necessary response measures according to the principles set out in the Regional Plan.





## SOUTH ASIA REGION

### DRAFT MoU

#### Paragraph 3: Reporting Marine Pollution Incidents

3.2 The Parties will require pilots of aircraft registered in their countries to report to the relevant competent national authority without delay significant spillages of oil or other harmful substances observed at sea. Such reports should as far as possible, contain the following:

- .1 date, time, position, wind and sea conditions; and
- .2 probable source of the spill observed.

## SOUTH ASIA REGION

### DRAFT MoU

#### Paragraph 3: Reporting Marine Pollution Incidents

3.3 The Parties will require masters of ships flying their flag or persons having charge of offshore units under their jurisdiction in case of pollution incidents to provide, on request by the respective competent national authorities, detailed information which is relevant to actions for preventing or responding to pollution at sea such as:

- .1 the ship and its cargo; or
- .2 the production in case of offshore units.

## SOUTH ASIA REGION

### DRAFT MoU

#### Paragraph 3: Reporting Marine Pollution Incidents

3.4 The Parties whenever receiving a pollution report will:

- .1 assess the nature, extent and possible consequences of the pollution incident;
- .2 take every practicable measure to prevent, reduce and eliminate the effect of the pollution incident; and
- .3 inform without delay other Parties whose interests are affected or likely to be affected by the pollution incident of this assessment and any action it has taken, or intends to take.

## SOUTH ASIA REGION

### DRAFT MoU

Paragraph 4: Assistance and Co-operation in Cases of Emergency

Paragraph 5: Reimbursement of Costs of Assistance

Paragraph 6: Exchange of Information

Paragraph 7: Joint Training and Exercises

## SOUTH ASIA REGION

### DRAFT MoU

Paragraph 8: Meetings of the Parties

Paragraph 9: Secretariat

Paragraph 10: Relation to Other Conventions and International Agreements

Paragraph 11 to 14: Final clauses on Amendments, Signature, Ratification, Acceptance, Depositary and Entry into Force and Withdrawal.

## SOUTH ASIA REGION

Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia

1. INTRODUCTION
2. POLICY AND RESPONSIBILITY
3. RESPONSE ELEMENTS AND PLANNING
4. RESPONSE OPERATIONS

## **SOUTH ASIA REGION**

### **Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia (Cont'.)**

5. COMMUNICATION AND REPORTING
6. ADMINISTRATION, LOGISTICS AND FUNDING
7. PUBLIC INFORMATION

## **SOUTH ASIA REGION**

### **Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia (Annexes)**

1. DIRECTORY OF COMPETENT NATIONAL AUTHORITIES, CONTACT POINTS, EMERGENCY RESPONSE CENTRES, NATIONAL ON-SCENE COMMANDERS AND OTHER RELEVANT ADDRESSES
2. NATIONAL CONTINGENCY PLANS (Or relevant parts thereof)

## **SOUTH ASIA REGION**

### **Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia (Annexes – Cont'.)**

3. DIRECTORY OF RESPONSE PERSONNEL AND INVENTORY OF RESPONSE EQUIPMENT, PRODUCTS AND OTHER MEANS WHICH EACH PARTY MIGHT OFFER AS ASSISTANCE IN CASE OF THE ACTIVATION OF THE PLAN INCLUDING INFORMATION RELATING TO THE WAGES OF PERSONNEL, THE RENTAL RATES OF EQUIPMENT AND COST OF MATERIALS
4. COMMUNICATION SYSTEM
5. GUIDELINES FOR REPORTING OIL SPILLS (AERIAL MONITORING)

## **SOUTH ASIA REGION**

### **Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia (Annexes – Cont'.)**

6. STANDARD FORMET FOR REQUESTING ASSISSTANCE
7. RESOURCES WHICH MIGHT BE MADE AVAILABLE FROM OUTSIDE THE REGION, AND THEIR CONTACT POINTS.
8. POLREP POLLUTION REPORTING SYSTEM
9. IOPC FUND "CLAIMS MANUAL"

## **SOUTH ASIA REGION**

### **Content of the draft Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia (Annexes – Cont'.)**

10. IMO ASSEMBLY RESOLUTION A.869(20), GUIDELINES FOR FACILITATION OF RESPONSE TO AN OIL POLLUTION INCIDENT PURSUANT TO ARTICLE 7 AND ANNEX OF THE INTERNATIONAL CONVENTION ON OIL POLLUTION PREPAREDNESS, RESPONSE AND CO-OPERATION, 1990.

Appendix 1: PROCEDURES FOR THE IDENTIFICATION OF PARTICULAR SENSITIVE SEA AREAS AND THE ADOPTION OF ASSOCIATED PROTECTIVE MEASURES (EXTRACT FROM RESOLUTION A.885(21).



