# LECTURE 2

## SAFETY AT SEA AND REGULATION COMPLIANCE

## 1.0 INTRODUCTION

This lecture examines regulations aimed at safeguarding life and the environment in the realm of shipping, which often lead to violations of both criminal and administrative laws within countries. The justification for such regulations stems from the global nature of maritime activities, necessitating a regulatory framework predominantly of an international nature.

While international regulations predominantly govern safety and environmental concerns, national laws remain relevant. Some nations, like the USA, assert that national regulations are more effective than international ones. In some circumstances, regulations are typically a patchwork, with extensive areas governed by international standards, interspersed with smaller patches of regional or national legislation to address gaps until further international standards emerge. This is more so because of the rigorous process of achieving regulations as a result of differences between the countries involved.

Initially, international or regional regulations are established through international conventions, while national regulations primarily stem from national statutes, government decrees, and court rulings. Nonetheless, national statutes remain pertinent even when a country is a signatory to an international or regional convention. As international conventions are essentially agreements between governments, the mechanism that enforces the provisions of a convention within a specific country is the national statute, thereby incorporating the convention into the domestic law of that country.

International conventions typically originate from various intergovernmental organizations with a specialized focus on maritime affairs. Prominent organizations of this nature include the International Maritime Organization (IMO), the United Nations Conference on Trade and Development (UNCTAD), the UN Commission on International Trade Law (UNCITRAL), the International Labour Organization (ILO), and the International Oil Pollution Compensation Fund (IOPC).

### 1.1 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982 (UNCLOS)

Many relevant international conventions align with the United Nations Convention on the Law of the Sea 1982 (UNCLOS), which delineates the rights and obligations of nations concerning oceanic usage and establishes guidelines for maritime activities, environmental protection, and marine resource management. While UNCLOS serves as a framework convention requiring states to adhere to international maritime rules and standards, its general provisions necessitate implementation through specific operational regulations outlined in other international agreements.

These agreements are developed by competent international organizations such as the IMO, particularly concerning maritime safety, navigation efficiency, and marine pollution prevention and control.

For example, UNCLOS outlines the fundamental principles governing flag state jurisdiction and the jurisdiction of coastal states, such as territorial waters and exclusive economic zones (EEZ). However, the specifics of compliance with safety regulations and shipping anti-pollution measures within these jurisdictions are detailed in IMO instruments and conventions. Additionally, the adoption and revision of IMO instruments and conventions often involve the procedure of 'tacit acceptance,' allowing amendments to take effect unless explicitly rejected by a specified number of contracting parties within a designated time frame.

## SAFETY REGULATIONS AT SEA

Safety regulations at sea are outlined in Article 94 of UNCLOS, mandating flag states to adhere to internationally recognized safety measures. Specific conventions established by the International Maritime Organization (IMO) enforce this requirement, including The International Convention for the Safety of Life at Sea, 1974 - (SOLAS 1974), The Protocol of 1988 relating to the International Convention on Load Lines, (Load Lines 1966), The International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE 1969), Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG 1972), The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 1978), and The International Convention on Maritime Search and Rescue, 1979 (SAR 1979).

While the above regulations dealt with the issues relating to safety at sea, consideration is also given to issues relating to preservation of the marine environment. Article 192 of UNCLOS underscores states' duty to safeguard the marine environment. Specific IMO conventions implementing this obligation include: The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (INTERVENTION 1969), The International Convention for the Prevention of Pollution from Ships,1973 (MARPOL 1973) amended by protocol of MARPOL 73/78, and The International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990, as amended (OPRC 1990), among others.

Articles 212 (3) and 222 of UNCLOS further necessitate states to establish regulations to curb pollution, with Annex VI of the MARPOL Protocol and the NOx Technical Code 2008 introducing Emission Control Areas (ECA) to restrict air pollutant emissions from ships.

UNCLOS also grants states jurisdictional powers over foreign vessels in their ports to enforce pollution prevention measures. Article 219 empowers port states to take administrative action against unseaworthy vessels posing environmental threats, often resulting in regional cooperation through Memoranda of Understanding (MoU) to ensure compliance with international standards.

## COMPENSATION MODELS FOR POLLUTION

**Compensation for Legal Liability:**

According to Article 235 (2) of UNCLOS, nations are required to ensure that their legal systems provide recourse for prompt and adequate compensation or other forms of relief for damage resulting from pollution of the marine environment by individuals or entities under their jurisdiction. This broad mandate is put into effect through various IMO instruments and conventions, including:

- The 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC 1969) and its 1992 Protocol, also referred to as the 1992 Civil Liability Convention or CLC 1992.
- The 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 1971) and amended in 1992 under Protocol, now known as the 1992 Fund Convention.
- The 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS 1996).
- The 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER 2001).
- The 2003 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992.

# 2.0 SAFETY AT SEA CONVENTIONS

Several significant international agreements govern safety at sea, including:

## (I) THE SAFETY OF LIFE AT SEA CONVENTION 1974 (SOLAS 1974) AND ITS 1988 PROTOCOL (SOLAS PROTOCOL 1988).

The current iteration, SOLAS Convention 1974, came into effect in 1974. It sets international standards for ship construction, fire safety, life-saving equipment, navigation tools, and other aspects of maritime safety and cargo carriage. Flag states enforce SOLAS provisions, with appointed inspectors conducting regular vessel inspections to ensure compliance.

Valid certificates confirming adherence to SOLAS standards are recognized by all signatory states. Port authorities verify these certificates upon vessel arrival, and vessels lacking valid certificates may be detained until safety concerns are addressed.

Following the periodic amendment, The International Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) 1998 was adopted.

The ISM Code, integrated into SOLAS Convention as Chapter IX in 1994, significantly impacts ship operation and pollution prevention.

It aims to ensure safety at sea, prevent human injury or loss of life, and mitigate environmental damage. Ship operators are required to implement quality assurance programs and a 'safe management system' to ensure compliance with safety standards and regulations. Emergency contingency plans are mandated to facilitate effective responses to potential crises. The ISM Code also necessitates the appointment of a designated person ashore with authority to ensure adequate resources and management support for ships.

Flag state authorities issue a Document of Compliance (DOC) to compliant operators and a Safety Management Certificate (SMC) to compliant ships. Both are valid for five years, subject to regular verification and audits. These documents are carried onboard and checked as part of Port State Control Systems.

Implementation of the ISM Code entails maintaining a paper trail documenting compliance, which can be crucial in legal matters regarding ship seaworthiness, operator liability, and insurance claims.

### (II) STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW 1995) CONVENTION.

The STCW 95, or Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, was established to address the shortcomings in seafarer training previously overseen solely by individual governments. Recognizing the link between inadequate training standards and maritime casualties, the STCW 1978 and subsequently the STCW 95 aimed to enforce globally recognized minimum training, certification, and watchkeeping standards for seafarers. These standards introduced a rigorous compliance process, requiring countries supplying seafarers to demonstrate proper implementation of STCW training guidelines to the International Maritime Organization (IMO).

Paragraph 6.2 of the International Safety Management (ISM) Code mandates that each ship must be manned by qualified, certified, and medically fit seafarers according to national and international regulations. However, the specific qualifications and certifications required are dictated by the STCW 95. Consequently, any breach of STCW 95 standards is considered a serious violation of the ISM Code.

STCW 95 entails legally binding obligations for flag state administrations and shipowners/operators. Flag states are obligated to establish appropriate training centers, set uniform training standards, issue competency certificates, and ensure systematic administration, with periodic quality inspections reported to the IMO.

For shipowning companies operating in contracting states, adherence to STCW 95 mandates ensuring that all onboard seafarers possess valid certificates of competence, undergo regular medical examinations, demonstrate emergency coordination skills, receive appropriate safety training, adhere to prescribed rest periods, and receive written instructions in their native language regarding onboard procedures.

Detailed records of seafarers' experience, competence, training, and medical fitness must also be maintained, often subject to disclosure in legal proceedings.

Vessels complying with STCW 95 are subject to oversight and compliance measures under the Port State Control system. Inspectors may assess the competence and training of seafarers during suspected incidents of negligence. Additionally, adherence to STCW 95 is crucial for ships to comply with security measures outlined in the International Ship and Port Facility Security Code (ISPS Code) 2002.

## (III) THE INTERNATIONAL SHIP AND PORT FACILITY SECURITY (ISPS CODE) 2002

The ISPS Code, adopted in response to security threats post-9/11, establishes a standardized framework for assessing security risks and implementing appropriate measures for ships and port facilities. It comprises legally binding obligations on vessel owners/operators and governments, with Part A detailing mandatory duties and mechanisms, while Part B offers voluntary guidance.

Shipowning companies must ensure each vessel has an approved Ship Security Plan (SSP) and appoint Ship Security Officers (SSOs) responsible for its implementation. Shore-based Company Security Officers (CSOs) oversee security assessments, personnel training, and communication with relevant authorities. Records pertaining to training, security incidents, and equipment maintenance must be retained.

Flag states are responsible for appointing officers to verify SSP compliance and issuing International Ship Security Certificates (ISSCs) for vessels meeting requirements. Port State Control measures are applied to ISPS-compliant ships, with vessels required to liaise with port facility security officers before arrival and adhere to security protocols. Contracting states must conduct port facility security assessments, appoint Port Facility Security Officers (PFSOs), set security levels, and determine when Declarations of Security (DOS) are necessary for vessels visiting their ports. DOS facilitate agreement on security measures between ships and port facilities in accordance with approved security plans.

## (IV) THE LOAD LINE CONVENTION 1966, AMENDED BY PROTOCOL IN 1988

This convention sets guidelines for the permissible cargo load on a specific vessel, considering factors like season, size, and construction, during its arrival, passage, or departure from various load line zones. Its purpose is to prevent ship loss due to overloading.

## (V) THE INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA 1972 (COLREGS)

This regulation establishes mandatory rules for maritime vessels navigating at sea. The necessity for such regulations led to the introduction of the first international regulations in 1897, and subsequently the COLREGS 1972 which has been accepted globally and are applicable to all vessels on the high seas and associated waters. These regulations outline both general and specific rules pertaining to navigation, communication, lighting, and other aspects.

## 3.0 MARINE POLLUTION AND WASTE CONVENTIONS

The primary international agreements governing marine pollution include the International Convention for the Prevention of Pollution from Ships (1973/1978) (MARPOL) and the International Convention for the Prevention of Pollution of the Sea by Oil from Ships (OILPOL). OILPOL, established in 1954, addresses oil pollution from ships, prohibiting deliberate oil discharge within 50 miles of land, regulating ballast discharge, and mandating oil record bookkeeping. Amendments were made after the TORREY CANYON incident in 1967, aiming to limit tanker tank sizes to minimize pollution risks.

Operational pollution, such as tank cleaning discharge, poses a widespread threat to marine environments, prompting the adoption of the MARPOL Convention in 1973. MARPOL expanded on OILPOL's principles to encompass all forms of marine pollution. The Convention, comprising various Annexes, mandates measures like banning operational oil discharge within 50 miles of land, regulating oil waste discharge, requiring oil tankers to have filtering systems, and imposing stricter ship survey regulations.

Annexes III to VI, though optional, cover regulations on harmful substances packaging, garbage disposal at sea, emission control, and ozone-depleting substances. International voyaging ships, excluding very small vessels, must hold certificates confirming MARPOL compliance, notably the International Oil Pollution Prevention Certificate (IIOP) for tankers. Port authorities verify these certificates upon vessel arrival; non-compliance can lead to vessel detention, and this can also serve as evidence during litigation.

When there is marine casualty, the impact is immediately directed on the insurers, shipowners and even the salvors may be required to make quick decisions. What influences the decisions of the outlisted entities is the intervention potentials of coastal states, who **The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution 1969 and the Intervention Protocol 1973** (**INTERVENTION 1969**) grants the right to intervene outside their territorial waters to avert imminent oil pollution threats caused by marine casualties.

**The International Convention On Oil Pollution Preparedness, Response and Co-operation OPRC 1990**, born out of the wake of the 1989 EXXON VALDEZ incident, addresses the deficiencies in response and readiness for significant oil spills, necessitating global attention. It mandates vessels, offshore drilling units, and shore-based establishments to develop pollution emergency plans to mitigate such risks. Moreover, the convention emphasizes mutual aid and international collaboration, including information exchange on response capabilities, preparation of emergency plans, reporting significant incidents affecting marine environments, and research on combating oil pollution. The London Dumping Convention of 1972, along with its 1996 Protocol, regulates the intentional disposal of wastes from ships and aircraft. While the 1972 Convention delineates substances with varying disposal requirements, the 1996 Protocol takes a more restrictive stance, barring the dumping of all substances except those explicitly listed as permissible, such as dredged material, sewage sludge, fish waste, and inert geological waste.

The Basel Convention of 1989 emerged due to the growing trade of transporting hazardous materials from regulated regions to less regulated areas. It prohibits the transportation of such waste and mandates parties to dispose of hazardous materials within their own territories, aiming to prevent situations where ships are stranded with cargoes that have nowhere to be safely discharged.

## 4.0 ENFORCEMENT AND COMPLIANCE SYSTEMS

Nations that are signatories to the SOLAS and MARPOL Conventions commit to enacting laws that establish legal consequences and disciplinary procedures for breaches of these conventions, thus forming a framework for enforcement. For example, countries participating in the "**Memorandum of Understanding on Port State Control in Implementing Agreements on Maritime Safety and Protection of the Marine Environment 1982** (**Paris MOU 1982**)" agree to conduct inspections of ships in each other's ports to verify compliance with safety and pollution prevention regulations. Inspection authorities are empowered to require the correction of significant issues before ships are permitted to depart, and information exchange among MOU nations ensures ongoing monitoring of suspect vessels. While various Regional Memoranda of Understanding (MOUs) exist, they generally adhere to the principles established by the Paris MOU, resulting in a universally recognized regulatory framework for ships visiting ports worldwide.

Regarding the **Role of Classification Societies**, many of the aforementioned conventions mandate that the flag state issue compliance certificates. However, the technical complexity involved often necessitates delegation of this task to classification societies, although ultimate responsibility remains with the flag state. Classification societies seeking authorization to issue such certificates must meet specified international criteria and, if approved, are designated as "Recognized Organizations."

Classification societies primarily focus on researching, developing, and overseeing the structural integrity of ships. While they typically provide these services privately to shipowners and builders under contract, other parties such as charterers, cargo owners, and insurers may also rely on their assessments to ensure the seaworthiness of vessels. When classification societies operate under private contracts, they and their surveyors are typically shielded from liability by the terms of the agreement. Although they have historically avoided liability to third parties in cases of negligence or tort, situations arise where their liability becomes more complex, particularly when acting as Recognized Organizations under international conventions. In such instances, third parties who have relied on the accuracy of issued certificates may attempt to hold both the flag state and the classification society accountable. While the flag state may invoke sovereign immunity, third parties may pursue claims against the classification society, as seen in cases like The Erika and The Prestige. These legal proceedings underscore the evolving complexities surrounding the liability of classification societies, with courts grappling over issues such as duty of care and indemnification.

Ultimately, the resolution of such disputes hinges on contractual agreements between flag states and classification societies, although efforts by the European Commission aim to ensure that classification societies indemnify flag states in cases where liability is incurred.

The international regulations mentioned earlier can be implemented at the national level through legislation enacted by a nation or region. Alternatively, countries not party to these international conventions may adopt analogous regulations through their own domestic laws. In either scenario, local laws frequently impose stricter responsibilities and liabilities compared to the corresponding international agreements.

## CONTRASTING USA REGULATIONS AND EU REGULATIONS

In the United States, regulations governing safety and pollution control are established independently of international conventions. These regulations encompass a comprehensive framework with statutes and intricate rules overseeing the discharge and containment of pollutants, as well as setting safety standards equivalent to or surpassing those outlined in MARPOL 73/78. Notably, the Vessel General Permit (VGP) program, also referred to as the National Pollution Discharge Elimination System (NPDES), imposes specific criteria for ship discharges within US waters. Compliance entails monitoring, reporting, and record-keeping, with severe penalties for violations, including substantial fines and potential criminal prosecution.

Key federal acts governing these regulations include the Comprehensive Environmental Response, Compensation, and Liability Act, 1980 (CERCLA), the Oil Pollution Act, 1990 (OPA 90), and the Federal Water Pollution Control Act, 1948, as amended (FWPCA). OPA 90, for instance, not only addresses pollution concerns but also mandates ship officer licensing, drug and alcohol testing, background checks, and establishes crewing and vessel condition requirements. Additionally, various federal and state laws collectively prohibit substandard vessels and any form of pollutant discharge into US jurisdictional waters. Oversight and enforcement of these regulations fall under the purview of two main US government agencies: the US Coast Guard (USCG) and the Environmental Protection Agency (EPA). The USCG conducts inspections, issues compliance certificates, and detains violators, while the EPA responds to hazardous substance releases with emergency and remedial actions.

In contrast, regulation within the European Union often relies on the implementation of EC directives to address environmental concerns, even when relevant international conventions lack sufficient provisions. For instance, EU directives such as 2004/35 on environmental liability and the 2009 Environmental Damage Regulations impose strict liability on facility owners for environmental harm, irrespective of international conventions' applicability. Additionally, Directive 2005/35/EC introduces criminal liability for seafarers in cases of pollution. The European Maritime Safety Agency (EMSA) oversees maritime safety within the EU, collaborating with member states to develop and enforce legislation, monitor traffic systems, and gather relevant data.

## SEAFARERS' RIGHTS REGULATED

Improving Seafarers' Working Conditions: To uphold the well-being and rights of seafarers, several key issues have been addressed and regulated as outlined below:

a) **Employment Continuity:**

- The Continuity of Employment (Seafarers) Convention 1976 mandates member states to maintain a registry of seafarers and ensure adequate provisions for their safety, health, welfare, and vocational training.
- The Recruitment and Placement of Seafarers Convention 1996 governs recruitment agency operations, safeguarding seafarers' basic human rights, including the right to unionize.
- The Seaman's Articles of Agreement Convention 1926 sets terms of employment detailed in seafarers' agreements.
- The Seafarers' Identity Documents Convention (Revised) 2003 oversees the issuance and contents of seafarers' identity documents.
- The Merchant Shipping (Minimum Standards) Convention mandates member states to ensure minimum safety, social security, and living conditions aboard ships.

b) **Qualifications and Fitness for Employment:**

- The Certification of Able Seamen Convention 1946 sets minimum standards for employment as an able seaman.
- The Officers' Competency Certificates Convention 1936 sets similar standards for ship's masters and officers.
- The Minimum Age Convention 1973 allows member states to determine the minimum age for seafarer employment.
- The Medical Examination (Seafarer's) Convention 1946 mandates a medical certificate confirming fitness for crew employment.

c) **Health and Safety:**

- The Seafarers' Hours of Work and the Manning of Ships Convention 1996 regulates maximum working hours for seafarers.
- The Prevention of Accidents (Seafarers) Convention 1970 mandates accident reporting, investigation, and record-keeping.

**d) Accommodation and Catering:**

- The Accommodation of Crews Convention (Revised) 1949 and the Accommodation of Crews (Supplementary Provisions) Convention 1970 regulate onboard accommodation standards.
- The Food and Catering (Ship's Crews) Convention 1946 oversees food and beverage standards, with regular hygienic checks.

Additionally, measures are in place to address seafarers' welfare and healthcare, such as repatriation, social security, pensions, and annual leave. The International Labour Organization (ILO) is tasked with monitoring member states' compliance and can intervene upon discovery of non-compliance.

In 2006, the International Labour Organization (ILO) established the Maritime Labour Convention (MLC) to consolidate key provisions from previous conventions into a comprehensive framework. This convention, regarded as the fourth pillar of shipping regulation alongside SOLAS, MARPOL, and STCW Conventions, sets minimum standards covering various aspects such as age, health, training, employment terms, accommodation, and welfare. It simplifies compliance by addressing these matters collectively, unlike prior separate conventions. Flag states are mandated to implement inspection and certification systems to ensure compliance, while labor-supplying states must monitor recruitment agencies to uphold these standards. Ships are required to possess a maritime labor certificate confirming adherence to these standards, enforced through port state control similar to existing conventions. Additionally, shipowners must arrange financial security for seafarers' repatriation in cases of owner bankruptcy.

## 5.0 EEZ, TERRITORIAL WATERS AND REGULATION COMPLIANCE

Regarding the Right of Unhindered Passage, coastal states historically granted foreign vessels the right to traverse territorial waters. The UN Convention on the Law of the Sea (UNCLOS) standardized territorial waters to twelve miles from the shoreline, with additional claims over Exclusive Economic Zones (EEZs) up to 200 miles. While innocent passage through territorial waters is permitted under UNCLOS, certain activities such as anchoring, pollution, and military actions are restricted. However, recent incidents like the PRESTIGE case have raised challenges to this right. Coastal states retain the authority to regulate port entry conditions, although most adhere to principles of free passage, especially WTO members. Regulation in international waters falls under UNCLOS, granting flag states jurisdiction over their vessels and personnel. However, other states may intervene under specific circumstances, such as piracy or environmental threats.

Ship operations are governed by a multitude of laws, necessitating shipowners and operators to diligently ensure compliance. The ISM Code emphasizes adherence to rules, regulations, and industry standards to maintain safety and security.

Neglecting these responsibilities not only jeopardizes personnel safety but also impacts legal claims and insurance coverage. Regular review of emergency response plans and proper documentation onboard is crucial to avoid delays, fines, or detention. Compliance failure can severely limit a ship's operational capabilities and reputation. Specialized guidance is available from various industry organizations to assist in meeting these obligations.