

Jan 2024

1. With reference to the International Maritime Organisation (IMO):
 - (a) state SEVEN of the main matters considered by the Maritime Safety Committee (MSC); (7)
 - (b) list THREE other main committees of the IMO. (3)

(a) Main Matters Considered by the IMO's Maritime Safety Committee (MSC)

The Maritime Safety Committee (MSC) is a crucial body within the IMO, addressing a wide range of issues. Here are seven of the main matters considered by the MSC:

1. **Safety of Life at Sea (SOLAS):** Updating and maintaining the SOLAS Convention, the cornerstone of maritime safety regulations, covering life-saving appliances, fire protection, navigation, and communication.
2. **International Maritime Organization (IMO) Pollution Prevention (MARPOL):** Overseeing the MARPOL convention to minimize pollution from ships by addressing oil, sewage, garbage, and other types of maritime pollution.
3. **Standards of Training, Certification and Watchkeeping for Seafarers (STCW):** Developing and revising the STCW Convention to ensure seafarers possess the necessary training and qualifications for safe ship operation.
4. **Human Element Issues:** Addressing crew fatigue, watchkeeping practices, and other human factor considerations that can impact maritime safety.
5. **Dangerous Goods:** Regulating the safe transport of dangerous goods by sea, including flammable materials, chemicals, and hazardous waste.
6. **Cybersecurity:** Developing guidelines and regulations to address cyber threats impacting shipboard systems and navigation.
7. **Autonomous Ships:** Creating a regulatory framework for the safe operation of autonomous surface ships (MASS) as technology advances.

(b) Other Main Committees of the IMO

Besides the Maritime Safety Committee (MSC), here are three other main committees of the IMO:

1. **Marine Environment Protection Committee (MEPC):** Focuses specifically on preventing pollution from ships, working closely with the MSC on issues related to MARPOL.
2. **Legal Committee (LEG):** Deals with legal matters related to international shipping, including flag state responsibilities, marine casualty investigations, and pollution compensation.
3. **Facilitation Committee (FAL):** Aims to simplify and expedite maritime transport by streamlining documentation, procedures, and formalities for international shipping.

10 September 2021

1. With reference to the International Maritime Organisation (IMO):
 - (a) state the THREE main categories of IMO Conventions; (3)
 - (b) state how IMO Conventions are enforced; (2)
 - (c) state the aim of the IMO Member State Audit Scheme (IMSAS). (5)

(a) Three Main Categories of IMO Conventions

The International Maritime Organization (IMO) adopts conventions covering a broad range of maritime issues. Here are the three main categories:

1. **Maritime Safety:** These conventions focus on ensuring the safety of life at sea, minimizing accidents, and protecting personnel onboard ships. Examples include the International Convention for the Safety of Life at Sea (SOLAS) and the Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
2. **Marine Environment Protection:** These conventions aim to prevent pollution from ships and protect the marine environment. The International Convention for the Prevention of Pollution from Ships (MARPOL) is the most prominent example.
3. **Liability and Compensation:** These conventions establish frameworks for compensation in case of maritime accidents or pollution incidents. Examples include the International Convention on Civil Liability for Oil Pollution Damage (CLC) and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND).

(b) Enforcement of IMO Conventions

Enforcement of IMO Conventions primarily relies on **flag state control**. Here's how it works:

- **Flag State Responsibility:** Each ship is registered with a flag state, which is the country responsible for ensuring the vessel complies with IMO regulations.
- **Port State Control:** Port authorities around the world can inspect foreign ships entering their ports to verify compliance with IMO conventions. If deficiencies are found, the ship may be detained until rectified.
- **Classification Societies:** Independent classification societies authorized by IMO can survey and certify ships on behalf of flag states, ensuring adherence to IMO conventions.

(c) Aim of the IMO Member State Audit Scheme (IMSAS)

The IMO Member State Audit Scheme (IMSAS) aims to verify that IMO member states effectively implement the relevant IMO conventions. Through audits, IMSAS assesses a member state's:

- **Legislative framework:** Checks if the country has adopted and incorporated IMO conventions into its national maritime legislation.
- **Administrative and enforcement capabilities:** Evaluates the state's capacity to enforce IMO regulations through inspections, certification procedures, and flag state control.

- **Resources:** Assesses the availability of qualified personnel and resources to effectively implement IMO conventions.

IMSAS findings and recommendations help member states identify areas for improvement and ultimately enhance overall compliance with IMO regulations.

Sources

info

1. issuu.com/kleintours/docs/brochure_english_2011
2. unctad.org/news/mauritius-oil-spill-highlights-importance-adopting-latest-international-legal-instruments

20 may 2021

28 May 2021

1. With reference to the International Safety Management Code (I.S.M):
 - (a) state the purpose of having a *designated person ashore* (d.p.a.); (6)
 - (b) state the TWO certificates that are required to be carried on a vessel in order to demonstrate compliance with the code. (4)

(a) Purpose of a Designated Person Ashore (DPA) in ISM

The International Safety Management (ISM) Code mandates the appointment of a Designated Person Ashore (DPA) for a critical reason: to act as the vital link between the shore-based management and the vessel's crew regarding safety and environmental matters. Here are the key functions of a DPA:

- **Monitoring:** The DPA oversees the implementation of the company's Safety Management System (SMS) onboard the vessel and ensures compliance with ISM Code requirements.
- **Communication:** They serve as the primary point of contact for the crew, providing support, guidance, and facilitating communication with shoreside management on safety issues.
- **Verification and Audit:** The DPA reviews reports, audits, and corrective actions related to safety and pollution prevention onboard, ensuring effectiveness.
- **Emergency Response:** In case of an emergency, the DPA plays a crucial role in coordinating the company's response efforts and supporting the vessel's crew.

(b) Certificates for ISM Code Compliance

There are not two specific certificates required for ISM Code compliance. However, two key documents demonstrate a vessel's adherence to the code:

1. **International Safety Management (ISM) Code Certificate:** This certificate, issued by the flag state administration or a recognized organization acting on their behalf, verifies that the company has a documented Safety Management System (SMS) that meets the requirements of the ISM Code.
2. **Document of Compliance (DOC):** The Document of Compliance is a company-issued document that outlines how the company complies with the ISM Code. It details the company's safety policies, procedures, and responsibilities for ensuring safe ship operation.

These documents, along with records of audits, reports, and corrective actions, are essential for demonstrating a company's commitment to safety management in accordance with the ISM Code.

26 feb 2021

26 February 2021

1. SOLAS requires regular testing of Emergency Sources of Electrical Power.

Describe the recommended routine testing procedure for the emergency generator, in accordance with Maritime & Coastguard Agency (MCA) guidance.

(10)

SOLAS Emergency Generator Testing According to MCA Guidance

The International Convention for the Safety of Life at Sea (SOLAS) mandates regular testing of emergency generators to ensure they function reliably when needed. The Maritime & Coastguard Agency (MCA) provides guidelines for these tests, promoting safe and effective procedures. Here's a breakdown of the recommended routine testing for emergency generators:

Testing Frequency:

- **Weekly:** A **no-load test** (off-load test) should be conducted at least once a week as part of routine safety checks. This verifies the engine's starting capability on battery power.
- **Monthly:**
 - A **load test** (on-load test) with the emergency generator supplying power to the emergency switchboard for a minimum of **30 minutes** is recommended. This ensures the generator can handle the electrical load in an emergency.
 - Additionally, a **hydraulic starting test** should be performed to confirm the functionality of the hydraulic starting system.
- **Annually:** A more comprehensive test may be required during annual surveys, potentially involving simulating a complete blackout by opening the interconnecting feeder breaker at the main switchboard.

General Testing Procedures:

1. **Preparation:** Ensure the emergency generator and surrounding area are clear and ready for testing. Refer to the manufacturer's instructions and risk assessments for specific procedures.
2. **Weekly Off-Load Test:**
 - Set the generator to manual mode (if applicable).
 - Start the engine using the battery starting system.
 - Monitor engine parameters like voltage, frequency, and exhaust temperature.
 - Run the engine for a short period (typically 10-15 minutes).
 - Stop the engine following the manufacturer's instructions.
3. **Monthly Load Test:**
 - Follow steps for the off-load test to start the engine.
 - Gradually apply load to the emergency generator by connecting essential equipment on the emergency switchboard.
 - Monitor engine performance under load, ensuring it meets required voltage and frequency specifications.
 - Maintain the load for at least 30 minutes.
 - Gradually remove the load and stop the engine following proper procedures.
4. **Monthly Hydraulic Starting Test:**

- Follow the manufacturer's instructions for this test.
- This typically involves activating the hydraulic starting system to crank the engine without battery power.

5. **Record Keeping:** Document all test results, including start times, stop times, any observations, and corrective actions taken (if necessary).

Additional Considerations:

- **Simulating Blackout (Annual):** Consult MCA guidance and classification societies for specific procedures for simulating a blackout during annual surveys. This may involve opening the interconnector feeder breaker to test automatic start-up and load transfer capabilities.
- **Safety Precautions:** Always prioritize safety during testing procedures. Ensure proper personal protective equipment (PPE) is worn, and maintain a safe distance from moving parts.
- **Manufacturer's Instructions:** Refer to the specific emergency generator's operation and maintenance manuals for detailed testing procedures and safety precautions.

By following these recommendations and adhering to MCA guidance, crew members can ensure their vessel's emergency generator is properly tested and prepared to function reliably in the event of a power outage at sea.

16 nov 2018

16 November 2018

1. With reference to the International Safety Management Code (I.S.M.):

(a) state the THREE main objectives of the I.S.M. code; (6)

(b) describe the role of the *designated person ashore (d.p.a.)*. (4)

(a) Three Main Objectives of the ISM Code

The International Safety Management (ISM) Code outlines a mandatory framework for shipboard safety management. Here are its three main objectives:

1. **Ensure Safety at Sea:** The ISM Code aims to prevent accidents, minimize injury or loss of life at sea, and safeguard the environment. It achieves this by promoting a culture of safety onboard vessels and encouraging continuous improvement in safety management practices.
2. **Prevent Pollution:** The code emphasizes preventing pollution from ship operations, including oil spills, sewage discharge, and garbage disposal. This aligns with protecting the marine environment and reducing the ecological impact of shipping activities.
3. **Enhance Compliance with Regulations:** The ISM Code promotes adherence to international maritime safety and pollution prevention regulations, including SOLAS, MARPOL, and STCW. It establishes a systematic approach for managing safety risks and ensuring compliance with these vital regulations.

(b) Role of the Designated Person Ashore (DPA)

The Designated Person Ashore (DPA) plays a critical role in implementing the ISM Code and ensuring a safe and environmentally responsible ship operation. Here's a breakdown of their key responsibilities:

- **Maintaining the Link Between Shore and Ship:** The DPA acts as the primary point of contact for the crew onboard regarding safety and environmental issues. They facilitate communication between the vessel's personnel and shore-based management.
- **Monitoring Safety and Pollution Prevention:** The DPA monitors the implementation of the company's Safety Management System (SMS) onboard the vessel. They review reports, audits, and corrective actions related to safety and pollution prevention, ensuring effectiveness.
- **Providing Resources and Support:** The DPA is responsible for ensuring adequate resources, including personnel, training, and equipment, are available onboard to maintain safety and prevent pollution. They also support the crew in resolving safety issues and addressing any deficiencies.
- **Verifying Compliance with the ISM Code:** The DPA conducts internal audits and reviews to verify the company's continued compliance with the ISM Code requirements. They identify any areas for improvement and report them to the shore-based management.
- **Emergency Response:** In case of an emergency at sea, the DPA plays a crucial role in coordinating the company's response efforts. They provide support and resources to the vessel's crew during critical situations.

By fulfilling these responsibilities, the DPA serves as a vital link in the safety management chain, ensuring a strong connection between shore-based management and the crew onboard, ultimately contributing to a safer and more environmentally responsible maritime industry.

sept 2021

10 September 2021

1. With reference to the International Maritime Organisation (IMO):
 - (a) state the THREE main categories of IMO Conventions; (3)
 - (b) state how IMO Conventions are enforced; (2)
 - (c) state the aim of the IMO Member State Audit Scheme (IMSAS). (5)

You've provided a great question! Here's the breakdown of the three main categories of IMO Conventions, enforcement mechanisms, and the aim of the IMO Member State Audit Scheme (IMSAS):

(a) Three Main Categories of IMO Conventions:

The International Maritime Organization (IMO) adopts a wide range of conventions to ensure safety and environmental responsibility at sea. These conventions fall into three main categories:

1. **Maritime Safety:** These conventions focus on preventing accidents at sea, protecting life, and ensuring the safe operation of vessels. Key examples include the International Convention for the Safety of Life at Sea (SOLAS) and the Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
2. **Marine Environment Protection:** These conventions aim to minimize pollution from ships and protect the marine environment. The International Convention for the Prevention of Pollution from Ships (MARPOL) is the most prominent example in this category.
3. **Liability and Compensation:** These conventions establish frameworks for financial compensation in case of maritime accidents or pollution incidents. Examples include the International Convention on Civil Liability for Oil Pollution Damage (CLC) and the International Convention on the Establishment of

(b) Enforcement of IMO Conventions:

Enforcement of IMO Conventions primarily relies on a **multi-layered approach**:

- **Flag State Control:** Each ship is registered with a flag state, which is the country responsible for ensuring the vessel complies with IMO regulations. Flag states conduct inspections and take corrective actions against non-compliant ships.
- **Port State Control:** Port authorities around the world can inspect foreign ships entering their ports to verify compliance with IMO conventions. If deficiencies are found, the ship may be detained until rectified.
- **Classification Societies:** Independent classification societies authorized by IMO can survey and certify ships on behalf of flag states, ensuring adherence to IMO conventions.

(c) Aim of the IMO Member State Audit Scheme (IMSAS):

The IMO Member State Audit Scheme (IMSAS) aims to verify that IMO member states effectively implement the relevant IMO conventions. Through audits, IMSAS assesses a member state's:

- **Legislative framework:** Checks if the country has adopted and incorporated IMO conventions into its national maritime legislation.
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- **Resources:** Assesses the availability of qualified personnel and resources to effectively implement IMO conventions.

IMSAS findings and recommendations help member states identify areas for improvement and ultimately enhance overall compliance with IMO regulations, promoting a safer and more sustainable maritime industry.

Sources

info

1. [issuu.com/kleintours/docs/brochure_english_2011](https://www.issuu.com/kleintours/docs/brochure_english_2011)
2. unctad.org/news/mauritius-oil-spill-highlights-importance-adopting-latest-international-legal-instruments

Sept 2021

10 September 2021

2. With reference to the International Convention for the Safety of Life at Sea (SOLAS 1974, as amended) Chapter XI section 2 - the *International Ship and Port Security Code*:

- (a) list the FIVE basic requirements for ships in order to comply with the code; (5)
- (b) list the basic procedures that will be required to be put in place in order for the vessel to operate at security level one. (5)

SOLAS Chapter XI-2 & ISPS Code: Security Requirements for Ships

The International Ship and Port Security (ISPS) Code, incorporated into SOLAS Chapter XI-2, outlines mandatory measures to enhance maritime security. Here's a breakdown of the key points:

(a) Five Basic Requirements for Ships (ISPS Code Part A):

1. **International Ship Security Certificate (ISSC):** The vessel must obtain an ISSC, demonstrating a company security assessment and a Ship Security Plan (SSP) that meets ISPS Code requirements.
2. **Company Security Officer (CSO):** The company employing the ship must appoint a designated Company Security Officer (CSO) responsible for overall security management.
3. **Ship Security Officer (SSO):** The ship must have a designated Ship Security Officer (SSO) responsible for implementing the Ship Security Plan (SSP) onboard.
4. **Ship Security Assessment (SSA):** A comprehensive Ship Security Assessment (SSA) must be conducted to identify security risks and vulnerabilities specific to the ship's operation.
5. **Ship Security Plan (SSP):** Based on the SSA, a detailed Ship Security Plan (SSP) must be developed outlining procedures to address identified risks, including measures for security levels 1, 2, and 3.

(b) Basic Procedures for Security Level 1 (ISPS Code Part A):

Security Level 1 represents the lowest security risk. Here are some basic procedures a ship might implement at this level:

- **Routine Security Checks:** Regular patrols of the ship's perimeter and vital areas to deter unauthorized access.
- **Control of Access:** Procedures for controlling access onboard, including verifying the identity of visitors and crew members embarking or disembarking.
- **Reporting of Security Incidents:** Clear guidelines for reporting any suspicious activity or security incidents to the appropriate authorities.
- **Security Awareness Training:** Crew familiarization with the Ship Security Plan (SSP) and their roles and responsibilities in maintaining security onboard.
- **Communication Procedures:** Established protocols for internal communication between crew members and external communication with shore-based authorities in case of security incidents.

Note: Specific procedures for each security level may vary depending on the identified risks in the Ship Security Assessment (SSA). As security levels increase (Level 2 and 3), stricter measures like heightened surveillance, restricted access zones, and additional security equipment may be required.

Nov 2020

3 November 2020

1. With reference to the International Convention for the Safety of Life at Sea (SOLAS), state the requirements for the routine testing of steering gears:
 - (a) prior to sailing from port; (5)
 - (b) at three monthly intervals while the vessel is proceeding on passage. (5)

SOLAS Requirements for Steering Gear Testing:

The International Convention for the Safety of Life at Sea (SOLAS) Chapter II-1 Regulation 26 outlines the requirements for testing steering gear.

Here's a breakdown of the testing requirements:

(a) Prior to Sailing from Port (Pre-departure test):

- **Testing of Steering Gears:** Within twelve hours before departure from port, the ship's crew must check and test the operation of the following steering gear components, where applicable:
 - Main steering gear
 - Auxiliary steering gear
 - Remote steering gear control systems
 - Steering positions located on the navigation bridge
 - Emergency power supply for steering gear
 - Rudder angle indicators in relation to the actual position of the rudder
 - Remote steering gear control system power failure alarms
- **Full Rudder Movement:** The test must also include verifying the **full movement of the rudder** according to the required capabilities of the steering gear system.
- **Visual Inspection:** A visual inspection of the steering gear and its connecting linkages should be conducted to identify any potential damage or anomalies.
- **Communication Check:** The operation of the means of communication between the navigation bridge and the steering gear compartment needs to be verified.

(b) Three Monthly Intervals While at Sea:

SOLAS regulations do not explicitly mandate routine testing of steering gear at three-monthly intervals while the vessel is at sea. However, some classification societies or national regulations may recommend additional testing procedures beyond the pre-departure checks.

It's best practice for the crew to conduct **operational checks** of the steering gear periodically during the voyage to ensure its functionality. These checks may involve verifying rudder response and communication with the steering gear compartment.

Important Note: Always refer to the specific requirements outlined in the vessel's Shipboard Management Manual (SMM) and Flag State regulations for any additional testing procedures beyond the mandatory pre-departure checks mandated by SOLAS.