

26 February 2021

3. With reference to the STCW '78 as amended, machinery space watchkeeping requirements, state EACH of the following:
- (a) the purpose of *standing orders*; (3)
 - (b) FOUR examples of *standing orders*; (4)
 - (c) the circumstances under which it would be inappropriate for an officer in charge of an engineering watch to hand over responsibility to a relief watchkeeper. (3)

nov 2018

9 November 2018

2. With reference to the STCW '78 as amended, machinery space watchkeeping requirements, state EACH of the following:
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 - (b) FOUR examples of *standing orders*; (4)
 - (c) the circumstances under which it would be inappropriate for an officer in charge of an engineering watch to hand over responsibility to a relief watchkeeper. (3)

STCW and Machinery Space Watchkeeping Requirements:

(a) Purpose of Standing Orders:

Standing orders are written instructions provided onboard a vessel to guide the operation and maintenance of machinery and equipment, particularly within the engine room. Their main purpose is to:

- **Ensure Consistent and Safe Operation:** Standing orders promote consistent and safe practices for operating and maintaining machinery by outlining clear procedures for routine tasks, emergency situations, and unforeseen circumstances.
- **Reduce Risk:** By providing clear instructions, standing orders help minimize the risk of human error and equipment malfunctions during machinery space operations.
- **Facilitate Watch Handover:** Standing orders serve as a reference point for watchkeeping engineers, ensuring a smooth and informed handover of responsibilities between crew members.

(b) Four Examples of Standing Orders:

1. **Starting and Stopping Procedures:** Standing orders typically detail the specific steps for starting and stopping main and auxiliary engines, outlining proper safety precautions and sequence of operations.
2. **Alarm Response Procedures:** These orders specify the actions to be taken in response to various machinery alarms, ensuring prompt and appropriate responses to potential issues.
3. **Maintenance Routines:** Standing orders may outline routine maintenance procedures for critical equipment, including lubrication checks, filter replacements, and other preventive maintenance tasks.

4. **Emergency Procedures:** Orders may detail actions to be taken in emergency situations such as fires, flooding, or loss of propulsion, promoting a coordinated and effective response from the engine room crew.

(c) Inappropriate Circumstances for Handing Over Watchkeeping Duties:

The officer in charge of an engineering watch should not hand over responsibility to a relief watchkeeper under the following circumstances:

1. **During Critical Maneuvers:** When the vessel is engaged in critical maneuvers like entering or leaving port, navigating restricted waters, or encountering adverse weather conditions, it's crucial for the experienced officer to remain in charge.
2. **Equipment Malfunction:** If the machinery space is experiencing a significant equipment malfunction or breakdown, a qualified and experienced officer should oversee the situation until it's stabilized and corrective actions are initiated.
3. **Unfamiliar Crew Member:** In cases where the relief watchkeeper is unfamiliar with the specific vessel's machinery or lacks sufficient experience for the prevailing conditions, it might be prudent for the current officer to remain on watch until a more suitable replacement is available.
4. **Impaired Watchkeeper:** If the relief watchkeeper appears to be under the influence of alcohol, drugs, or is otherwise unfit for duty due to fatigue or illness, handing over responsibility would be inappropriate and potentially dangerous.

Ultimately, the officer in charge of the watch has the responsibility to exercise professional judgement and ensure a safe handover considering the prevailing circumstances and the competency of the relief watchkeeper.

19 nov 2021

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3. As required by the STCW Convention:

- (a) state THREE actions that the Officer in charge of an Engineering Watch undertakes when assisting maintenance, repair or emergency activities; (6)
- (b) state TWO circumstances under which the Officer in charge of the Engineering Watch shall notify the Chief Engineer Officer without delay. (4)

16 nov 2018

16 November 2018

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- (b) state TWO circumstances under which the Officer in charge of the Engineering Watch shall notify the Chief Engineer Officer without delay. (4)

STCW and the Officer In Charge of an Engineering Watch (OICEW)

(a) Actions of OICEW During Maintenance, Repair, or Emergencies (STCW):

The STCW Convention emphasizes the responsibilities of the Officer In Charge of an Engineering Watch (OICEW) during maintenance, repair, or emergency activities onboard a vessel. Here are three key actions an OICEW undertakes:

1. **Risk Assessment and Supervision:** The OICEW should participate in a risk assessment before any maintenance, repair, or emergency operation begins. This involves identifying potential hazards and ensuring appropriate safety precautions are implemented. They also supervise the work to ensure adherence to safe working practices and procedures.
2. **Communication and Coordination:** The OICEW plays a crucial role in communication and coordination during such activities. They must keep the Chief Engineer Officer informed of the ongoing work, any identified risks, and ensure clear communication between personnel involved.
3. **Monitoring and Watchkeeping:** While maintenance or repairs are ongoing, the OICEW maintains overall watchkeeping duties within the engine room. This includes monitoring critical machinery parameters, alarms, and ensuring the safe operation of remaining equipment.

(b) Circumstances for OICEW to Notify Chief Engineer Officer (STCW):

The OICEW is obligated to notify the Chief Engineer Officer without delay under two specific circumstances:

1. **Equipment Malfunction or Breakdown:** If the OICEW encounters a significant equipment malfunction or breakdown that could potentially affect the propulsion or safety of the vessel, immediate notification to the Chief Engineer is crucial. This allows for a prompt and coordinated response to address the issue and ensure the safe operation of the ship.
2. **Safety Concerns:** If the OICEW has any safety concerns regarding the ongoing maintenance, repair, or emergency activities, they must notify the Chief Engineer Officer without delay. This could involve concerns about inadequate safety precautions, the competence of personnel involved, or any other factor that could potentially compromise safety.

By fulfilling these responsibilities, the OICEW plays a vital role in ensuring safe and efficient machinery space operations during maintenance, repair, and emergency situations.

3 nov 2020

3 November 2020

2. Outline the engineering watchkeeping requirements, as stated in the STCW Convention, under EACH of the following conditions:

- (a) restricted visibility; (3)
- (b) coastal or congested waters; (3)
- (c) ship at anchor in open roadstead or similar *at sea* condition. (4)

STCW Engineering Watchkeeping Requirements:

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) outlines specific requirements for engineering watchkeeping under various operational conditions. Here's a breakdown for the scenarios you mentioned:

(a) Restricted Visibility:

- **Increased Manning:** STCW recommends increasing the number of qualified personnel on watch in the engine room during periods of restricted visibility (e.g., fog, heavy rain). This ensures closer monitoring of machinery and allows for a quicker response to potential issues.
- **Enhanced Communication:** Clear and frequent communication between the bridge and engine room is crucial. The OICEW should be informed of the visibility limitations and any changes in course or speed.
- **Machinery Readiness:** Critical machinery, such as boilers, auxiliary engines, and steering gear, should be maintained in a state of immediate readiness to ensure maneuverability and propulsion in case of emergencies.

(b) Coastal or Congested Waters:

- **Standby for Maneuvering:** The watchkeeping arrangements should ensure the ability to place main and auxiliary machinery in immediate operation to support maneuvering requirements. This might involve having additional personnel on standby or assigning specific roles for maneuvering situations.
- **Communication and Monitoring:** Maintaining clear communication with the bridge is essential. The OICEW needs to be aware of navigation changes, potential traffic encounters, and any maneuvering orders to adjust engine power accordingly. Close monitoring of machinery parameters and alarms is vital during navigation in congested areas.
- **Emergency Preparedness:** The engine room crew should be prepared to respond to emergencies that may arise in congested waters, such as collisions or groundings.

(c) Ship at Anchor in Open Roadstead or Similar Sea Condition:

- **Reduced Manning:** STCW allows for a potential reduction in the number of personnel on watch while the ship is securely anchored in good weather conditions. However, the specific requirements depend on the size and type of vessel, prevailing weather conditions, and the Chief Engineer Officer's discretion.
- **Periodic Checks:** Even with reduced manning, regular checks of the machinery space, bilge levels, and critical alarms are necessary. The frequency of these checks depends on factors like weather and sea state.
- **Maintenance and Repairs:** If maintenance or repair work is scheduled while at anchor, the OICEW must ensure proper safety precautions are taken and maintain communication with the bridge regarding any operational limitations caused by the work.

Important Note: These are general guidelines based on the STCW Convention. The specific watchkeeping requirements for each scenario may vary depending on the vessel's Safety Management System (SMS), Flag State regulations, and the Chief Engineer Officer's instructions. Consulting the vessel's Shipboard Management Manual (SMM) remains essential for detailed watchkeeping procedures under various conditions.

9 November 2018

1. With reference to the MARPOL Convention Annex I - Shipboard Oil Pollution Emergency Plan (SOPEP):
 - (a) outline FOUR minimum requirements that should be included in the plan; (4)
 - (b) describe the actions that should be taken on discovering an accidental discharge of oil during bunkering. (6)

SOPEP Requirements and Actions for Bunkering Oil Discharge (MARPOL Annex I)

The MARPOL Annex I Shipboard Oil Pollution Emergency Plan (SOPEP) serves as a critical guide for responding to oil spills at sea. Here's a breakdown of key points:

(a) Four Minimum Requirements for SOPEP:

1. **Information on the Ship:** The SOPEP should include essential details about the vessel, such as its general arrangement, capacities of oil tanks, and location of oil discharge containment and recovery equipment onboard.
2. **Reporting Procedures:** The plan must outline clear procedures for reporting oil spills to the appropriate authorities, including coastal states, flag state administration, and the ship's company.
3. **Actions to Contain and Recover Oil:** This section details the steps to be taken for containing and recovering spilled oil at sea. It should include deployment procedures for equipment like booms, skimmers, and sorbents.
4. **Personnel Training:** The SOPEP should specify training requirements for crew members in responding to oil spills, including familiarization with the plan, equipment usage, and spill response procedures.

(b) Actions on Discovering Accidental Discharge During Bunkering:

In case of an accidental oil discharge during bunkering operations, immediate and effective action is crucial. Here's a basic outline of steps to be taken:

1. **Stop Bunkering Operation Immediately:** The first priority is to stop the bunkering process to prevent further oil discharge. This involves closing valves and isolating pipelines involved in the transfer operation.
2. **Contain the Spill:** If possible, deploy containment booms around the spilled oil to prevent it from spreading further. This helps minimize the area of contamination and facilitates oil recovery.
3. **Activate the SOPEP:** Inform the master or designated officer about the incident and activate the SOPEP. This ensures a coordinated response involving crew members trained in spill response procedures.
4. **Alert the Authorities:** Report the incident to the relevant authorities as outlined in the SOPEP. This typically involves contacting the coastal state authorities, flag state administration, and the ship's company.
5. **Recover the Oil:** Deploy skimmers or other appropriate equipment to recover as much spilled oil as possible from the water surface.

6. **Record Keeping:** Document all actions taken in response to the incident, including the time of the spill, estimated amount of oil discharged, and response measures implemented. This information is crucial for future reporting and investigations.

Important Note: The specific procedures for responding to oil spills may vary depending on the SOPEP of the vessel and the prevailing environmental conditions. Crew members should be familiar with their SOPEP and receive proper training on using oil spill response equipment to ensure an effective response in case of an oil discharge incident.

19 feb 2021

19 February 2021

2. With reference to the MARPOL Convention Annex I - Shipboard Oil Pollution Emergency Plan (SOPEP):

(a) outline FOUR minimum requirements that should be included in the plan; (4)

(b) describe the actions that should be taken on discovering an accidental discharge of oil during bunkering. (6)

(a) Four Minimum Requirements for SOPEP (MARPOL Annex I):

1. **Ship Information:** The SOPEP should include essential details about the vessel, such as its general arrangement, capacities of oil tanks, and location of oil discharge containment and recovery equipment onboard.
2. **Reporting Procedures:** The plan must outline clear procedures for reporting oil spills to the appropriate authorities, including coastal states, flag state administration, and the ship's company.
3. **Oil Spill Response:** This section details steps for containing and recovering spilled oil at sea. It should include deployment procedures for equipment like booms, skimmers, and sorbents.
4. **Crew Training:** The SOPEP should specify training requirements for crew members in responding to oil spills, including familiarization with the plan, equipment usage, and spill response procedures.

(b) Actions on Discovering Accidental Discharge During Bunkering:

1. **Stop Bunkering Immediately:** Stop the bunkering process to prevent further oil discharge by closing valves and isolating pipelines.
2. **Contain the Spill:** If possible, deploy containment booms around the spilled oil to minimize the contaminated area and facilitate recovery.
3. **Activate SOPEP:** Inform the master or designated officer and activate the SOPEP for a coordinated response involving trained crew members.
4. **Alert Authorities:** Report the incident to the relevant authorities as outlined in the SOPEP, typically contacting coastal state authorities, flag state administration, and the ship's company.
5. **Recover the Oil:** Deploy skimmers or other equipment to recover as much spilled oil as possible from the water surface.
6. **Record Keeping:** Document all actions taken, including the time of the spill, estimated amount of oil discharged, and response measures implemented, for future reporting and investigations.

Remember, the specific procedures may vary depending on the SOPEP and environmental conditions. Crew familiarization with the SOPEP and proper training on oil spill response equipment are crucial for an effective response.

16 November 2018

2. With reference to the MARPOL Convention Annex I:
- (a) list SIX circumstances under which an entry must be made in the Oil Record Book; (6)
 - (b) detail the specific entries that must be made in the Oil Record Book following a routine overboard discharge of machinery space bilge water. (4)

(a) Six Circumstances for Oil Record Book Entries:

MARPOL Annex I mandates entries in the Oil Record Book (ORB) under various operational scenarios to maintain a clear record of oil-related activities onboard a ship. Here are six key circumstances:

1. **Loading of Oil Cargo:** Details such as the type of oil loaded, quantity loaded, and tank(s) used for storage must be recorded.
2. **Transfer of Oil Cargo:** Entries are required for oil transfers between tanks onboard the ship, including quantities transferred and tanks involved.
3. **Discharge of Oil Residues:** Any discharge of oily residues or bilge water mixtures must be recorded, specifying the quantity discharged, method of discharge (e.g., shore reception facility, incinerator), and the reason for discharge.
4. **Machinery Space Operations:** Entries are required for various machinery space operations, including lube oil transfers, filter cleaning, and any accidental or operational discharges of oil.
5. **Bunkering:** Records of bunkering operations must include the type of fuel oil received, quantity bunkered, and tank(s) used for storage.
6. **Retention of Oily Mixtures on Board:** If oily bilge water or other mixtures are retained onboard for further treatment or disposal ashore, a record must be maintained in the ORB, specifying the quantity retained and the tank(s) used for storage.

(b) Entries for Routine Overboard Discharge of Bilge Water:

Following a routine overboard discharge of machinery space bilge water permitted under MARPOL Annex I (meeting the specified oil content limits), the following specific entries must be made in the Oil Record Book Part I (Machinery Space Operations):

- **Date and Time:** Record the date and time (in GMT or ship's time) when the bilge water discharge commenced and finished.
- **Position of the Ship:** Include the ship's geographical position at the time of discharge using latitude and longitude in degrees and minutes.
- **Quantity Discharged:** Record the estimated or measured quantity of bilge water discharged overboard in cubic meters.
- **Oil Content:** Indicate that the bilge water discharge met the MARPOL Annex I requirements for oil content (typically less than 15 ppm). If a bilge water separator is used, the record may include a reference to the separator model and its MARPOL certificate.
- **Method of Discharge:** Specify the method used for discharging the bilge water overboard (e.g., gravity discharge, pump discharge).
- **Reason for Discharge:** Indicate that the discharge was a routine operation and the bilge water met the regulatory oil content limits.
- **Signature:** The officer in charge of the operation and the master of the ship must sign the respective sections in the ORB.

Important Note: It's crucial to consult the specific requirements of MARPOL Annex I and the vessel's SOPEP for detailed guidance on bilge water management and overboard discharge limitations. Bilge water discharge restrictions may apply in certain areas or special areas designated by the IMO.

10 sept 2021

10 September 2021

3. With reference to MARPOL Annex V (Prevention of Pollution by Garbage from Ships):
- (a) state which vessels require a Garbage Record Book (GRB); (1)
 - (b) state the FOUR operations which require an entry in the GRB; (4)
 - (c) list the FIVE pieces of specific information required to be entered when an operation stated in part (b) is carried out. (5)

MARPOL Annex V and Garbage Record Book (GRB):

(a) Vessels Requiring a Garbage Record Book (GRB):

MARPOL Annex V mandates all seagoing vessels of 400 gross tonnage and above engaged in international voyages to carry a Garbage Record Book (GRB). Some national regulations may extend this requirement to smaller vessels operating domestically.

(b) GRB Entries: Four Required Operations:

The GRB serves as a detailed record of a ship's garbage management practices. Entries are required for the following four specific operations:

1. **Discharge of Garbage at Sea:** Any discharge of garbage overboard, even if permitted under Annex V regulations (e.g., food waste beyond 12 nautical miles from land), must be documented in the GRB.
2. **Incineration of Garbage onboard:** If the ship has an incinerator and uses it to dispose of garbage, a record of each incineration operation needs to be entered in the GRB.
3. **Retention of Garbage onboard for Discharge Ashore:** When garbage is accumulated onboard for disposal at a reception facility in port, details of the stored garbage must be recorded in the GRB.
4. **Transfer of Garbage to Another Ship or to Shore Reception Facilities:** Entries are required for any transfer of garbage to another ship or to shore reception facilities at ports or terminals.

(c) Five Required Pieces of Information per Operation:

For each of the four operations mentioned above, the following five specific pieces of information must be entered into the GRB:

1. **Date and Time:** Record the date and time (in GMT or ship's time) when the operation (discharge, incineration, retention, or transfer) occurred.
2. **Garbage Category and Estimated Quantity:** Indicate the type of garbage involved (e.g., plastics, food waste, paper) and estimate the quantity of garbage in cubic meters.
3. **Location of the Ship:** Record the ship's geographical position at the time of the operation using latitude and longitude in degrees and minutes.
4. **Disposal Method:** Specify the method used for disposing of the garbage (e.g., discharged overboard, incinerated, stored onboard, transferred).

5. **Remarks:** Any additional relevant details about the operation can be included in the remarks section. This may involve references to permits for discharging specific types of garbage at sea, or identification of the receiving ship or shore reception facility in case of transfers.

Important Note: Always refer to the latest MARPOL Annex V regulations and consult the vessel's Garbage Management Plan for specific garbage categorization and discharge limitations. Proper GRB maintenance is crucial for demonstrating compliance with MARPOL regulations during port state control inspections.

26 feb 2021

26 February 2021

2. With reference to the International MARPOL Convention 73/78 Annex V - Garbage handling:

- (a) list SIX defined categories of garbage; (6)
- (b) list FOUR garbage handling procedures that require an entry in the garbage record book. (4)

MARPOL Annex V and Garbage Handling:

(a) Six Defined Categories of Garbage:

MARPOL Annex V categorizes garbage generated on ships to facilitate proper handling and disposal. Here are the six main categories:

1. **Food waste:** Includes all galley waste, leftovers, vegetable matter, fruit peels, and other food items not consumed.
2. **Plastics:** Encompasses all types of plastic materials, including packaging, utensils, ropes, fishing gear, and other plastic debris.
3. **Paper:** This category includes paper products like newspapers, cardboard boxes, paper towels, and office waste.
4. **Glass:** Broken or whole glass items, including bottles, drinking glasses, and laboratory glassware.
5. **Metal:** Metal cans, scrap metal, foil, and other metallic items generated onboard the ship.
6. **Operational waste:** This category includes non-consumable items associated with ship operations, such as used engine oil filters, greasy rags, cleaning chemicals, and expired chemicals.

(b) Garbage Handling Procedures Requiring GRB Entries:

The Garbage Record Book (GRB) serves as an official record of a ship's garbage management practices. MARPOL Annex V mandates entries for the following four specific garbage handling procedures:

1. **Discharge of Garbage at Sea:** Any discharge of garbage overboard, even if permitted under Annex V regulations (e.g., food waste beyond 12 nautical miles from land), must be documented in the GRB.
2. **Incineration of Garbage onboard:** If the ship has an incinerator and uses it to dispose of garbage, a record of each incineration operation needs to be entered in the GRB.
3. **Retention of Garbage onboard for Discharge Ashore:** When garbage is accumulated onboard for disposal at a reception facility in port, details of the stored garbage must be recorded in the GRB.
4. **Transfer of Garbage to Another Ship or to Shore Reception Facilities:** Entries are required for any transfer of garbage to another ship or to shore reception facilities at ports or terminals.

| 28 May 2021 |

2. With reference to the International MARPOL Convention Annex V pollution of the sea by garbage:
- (a) list SIX special areas that apply to the disposal of garbage; (6)
 - (b) state the disposal restrictions that are placed on EACH of the following categories of garbage within the various special areas:
 - (i) operational waste; (1)
 - (ii) ground-up food waste. (3)

MARPOL Annex V and Special Areas Garbage Disposal:

(a) Six MARPOL Annex V Special Areas:

MARPOL Annex V designates specific areas around the globe with stricter regulations to minimize pollution from ship-generated garbage. Here are six prominent special areas:

1. **The Mediterranean Sea Area:** Encompasses the entire Mediterranean Sea and its related seas.
2. **The Baltic Sea Area:** Includes the Baltic Sea and its gulfs and inlets.
3. **The Black Sea Area:** Covers the Black Sea and its related waters.
4. **The Red Sea Area:** Encompasses the Red Sea including the Gulf of Suez and the Gulf of Aqaba.
5. **The Wider Caribbean Region (WACR):** Includes the Caribbean Sea and its adjacent waters, the Gulf of Mexico, and certain areas of the Atlantic Ocean off the eastern coasts of North and Central America.
6. **The Antarctic Area:** Covers the waters south of a latitude of 60° South, except adjacent to land south of 60° South.

Important Note: This list is not exhaustive, and additional special areas may be designated by the International Maritime Organization (IMO). It's crucial to consult the latest MARPOL regulations and relevant charts for specific special area boundaries and restrictions.

(b) Garbage Disposal Restrictions in Special Areas:

Within special areas, stricter disposal regulations apply compared to regulations outside these areas. Here's a breakdown of restrictions for the specified garbage categories:

(i) Operational Waste:

- **General Prohibition:** In most special areas, the discharge of operational waste overboard is prohibited entirely.
- **Exceptions:** Some special areas may allow limited discharge of certain operational waste types under exceptional circumstances, provided specific conditions are met (e.g., food waste particles less than 2 mm in size). Always consult the specific regulations for the special area in question.

(ii) Ground-up Food Waste:

- **Restrictions May Apply:** While some special areas may allow the discharge of ground-up food waste outside designated navigation areas, restrictions often apply. These may include minimum distance from land requirements or limitations based on particle size of the ground food waste.

- **Complete Prohibition:** Certain special areas, particularly those with sensitive ecosystems, may completely prohibit the discharge of ground-up food waste overboard.

Remember: For the most up-to-date information on specific garbage disposal restrictions within a special area, always consult the latest MARPOL Annex V regulations and relevant navigation charts covering the special area in question. Following these regulations helps protect sensitive marine environments from pollution by ship-generated garbage.

Jan 2024

Jan 2024

3. With reference to the MARPOL Convention Annex I - Shipboard Oil Pollution Emergency Plan (SOPEP):
- (a) outline FOUR minimum requirements that should be included in the plan; (4)
 - (b) describe the actions that should be taken on discovering an accidental discharge of oil during bunkering. (6)

SOPEP Requirements and Actions for Bunkering Oil Discharge (MARPOL Annex I)

The MARPOL Annex I Shipboard Oil Pollution Emergency Plan (SOPEP) serves as a critical guide for responding to oil spills at sea. Here's a breakdown of key points:

(a) Four Minimum Requirements for SOPEP:

1. **Ship Information:** The SOPEP should include essential details about the vessel, such as its general arrangement, capacities of oil tanks, and location of oil discharge containment and recovery equipment onboard.
2. **Reporting Procedures:** The plan must outline clear procedures for reporting oil spills to the appropriate authorities, including coastal states, flag state administration, and the ship's company.
3. **Oil Spill Response:** This section details the steps to be taken for containing and recovering spilled oil at sea. It should include deployment procedures for equipment like booms, skimmers, and sorbents.
4. **Crew Training:** The SOPEP should specify training requirements for crew members in responding to oil spills, including familiarization with the plan, equipment usage, and spill response procedures.

(b) Actions on Discovering Accidental Discharge During Bunkering:

In case of an accidental oil discharge during bunkering operations, immediate and effective action is crucial. Here's a basic outline of steps to be taken:

1. **Stop Bunkering Immediately:** The first priority is to stop the bunkering process to prevent further oil discharge. This involves closing valves and isolating pipelines involved in the transfer operation.
2. **Contain the Spill:** If possible, deploy containment booms around the spilled oil to prevent it from spreading further. This helps minimize the area of contamination and facilitates oil recovery.
3. **Activate the SOPEP:** Inform the master or designated officer about the incident and activate the SOPEP. This ensures a coordinated response involving crew members trained in spill response procedures.

4. **Alert the Authorities:** Report the incident to the relevant authorities as outlined in the SOPEP. This typically involves contacting the coastal state authorities, flag state administration, and the ship's company.
5. **Recover the Oil:** Deploy skimmers or other appropriate equipment to recover as much spilled oil as possible from the water surface.
6. **Record Keeping:** Document all actions taken in response to the incident, including the time of the spill, estimated amount of oil discharged, and response measures implemented. This information is crucial for future reporting and investigations.

Important Note: The specific procedures for responding to oil spills may vary depending on the SOPEP of the vessel and the prevailing environmental conditions. Crew members should be familiar with their SOPEP and receive proper training on using oil spill response equipment to ensure an effective response in case of an oil discharge incident.

19 feb 2021

19 February 2021

5. With reference to the Code of Safe Working Practices for Merchant Seafarers guidance on *dangerous (enclosed) spaces*:

- (a) list FOUR examples of a dangerous (enclosed) space; (4)
- (b) outline the requirements to be satisfied before entering a dangerous (enclosed) space. (6)

Dangerous Enclosed Spaces and Entry Requirements (Code of Safe Working Practices)

The Code of Safe Working Practices for Merchant Seafarers provides important guidelines for working safely in enclosed spaces onboard ships. Here's a breakdown of key points:

(a) Four Examples of Dangerous Enclosed Spaces:

Enclosed spaces on a ship can pose various hazards due to limited ventilation, potential for oxygen deficiency, or the presence of flammable or toxic gases. Here are four prominent examples:

1. **Cargo Holds:** These compartments can contain residual fumes from cargo or pose oxygen deficiency risks if not properly ventilated before entry.
2. **Fuel Tanks:** The risk of flammable vapors and potential explosions makes fuel tanks particularly dangerous enclosed spaces.
3. **Pump Rooms:** These spaces may house pumps handling various liquids, creating a risk of exposure to toxic fumes or flammable vapors.
4. **Ballast Tanks:** Ballast tanks can contain stagnant water and oxygen-deficient atmospheres, posing a risk of suffocation.

(b) Requirements Before Entering a Dangerous Enclosed Space:

The Code emphasizes strict procedures to ensure crew safety before entering any dangerous enclosed space. Here are some key requirements that must be satisfied:

1. **Permit to Work System:** A formal permit to work system should be established. This ensures proper authorization, risk assessment, and implementation of safety precautions before entry.
2. **Ventilation:** The enclosed space must be adequately ventilated for a sufficient period to remove any hazardous gases or oxygen-deficient atmospheres.
3. **Atmosphere Testing:** Before entry, the atmosphere within the space must be tested for oxygen content, the presence of flammable or toxic gases, and any other potential hazards.
4. **Safety Equipment:** Crew entering the space must be equipped with appropriate personal protective equipment (PPE) such as breathing apparatus, safety harnesses, and communication devices.
5. **Standby and Rescue:** A designated standby person with rescue equipment should be stationed outside the enclosed space throughout the entry operation to assist in case of emergencies.
6. **Continuous Monitoring:** The atmosphere within the space and the well-being of personnel inside should be continuously monitored during the entire entry period.

By adhering to these requirements and following the Code of Safe Working Practices, crew members can significantly reduce the risks associated with working in dangerous enclosed spaces onboard ships.

3 nov 2020

3 November 2020

5. The Code of Safe Working Practice for Merchant Seafarers states that a *Permit to Work* must be obtained before certain tasks can be undertaken

(a) State the purposes of a *Permit to Work*. (4)

(b) List SIX items that need to be included on a *Permit to Work*. (6)

Permit to Work: Safeguarding Dangerous Tasks at Sea (Code of Safe Working Practices)

The Code of Safe Working Practices for Merchant Seafarers emphasizes the importance of a Permit to Work system for specific onboard tasks. Here's a breakdown of its purposes and essential information:

(a) Purposes of a Permit to Work:

The Permit to Work serves several crucial purposes onboard a ship:

1. **Risk Assessment and Mitigation:** It necessitates a formal risk assessment for the planned task, identifying potential hazards and outlining necessary safety measures to mitigate those risks.
2. **Clear Communication and Authorization:** The permit ensures clear communication and authorization for the task. It defines the scope of work, personnel involved, and required safety precautions, preventing unauthorized or poorly planned work activities.
3. **Enhanced Safety Culture:** The permit system promotes a safety-conscious culture onboard. By requiring careful planning and risk assessment, it encourages a proactive approach to safety for potentially hazardous tasks.
4. **Record Keeping and Accountability:** The completed permit serves as a record of the task, documenting the identified risks, implemented safeguards, and personnel involved. This facilitates accountability and future reference if needed.

(b) Six Essential Items on a Permit to Work:

A well-designed Permit to Work should include the following six key items:

1. **Work Description:** A clear and concise description of the task to be undertaken, specifying its location and any equipment involved.
2. **Risk Assessment:** A documented assessment of potential hazards associated with the task, along with the planned mitigation measures to address each identified risk.
3. **Precautions and Safe Work Procedures:** Specific safety precautions required for the task, such as ventilation requirements, personal protective equipment (PPE) to be used, and any isolation procedures necessary.
4. **Permits Required:** Identification of any additional permits needed for specific aspects of the work (e.g., hot work permit for welding activities).
5. **Personnel Involved:** Names and qualifications of personnel authorized to perform the task, including the permit issuer, those executing the work, and a designated standby person for safety monitoring.
6. **Signatures and Approvals:** Signatures from authorized personnel signifying approval to proceed with the work after acknowledging the risks and planned safeguards. This typically includes the permit issuer, those performing the task, and sometimes the Master of the vessel.

By adhering to a comprehensive Permit to Work system, ship operators can significantly enhance onboard safety and prevent accidents during potentially hazardous tasks.

10 sept 2021

10 September 2021

5. The Code of Safe Working Practice for Merchant Seafarers states that *Permits to Work* must be obtained before certain tasks can be undertaken.
 - (a) List the conditions to be met before a *Permit to Work* is issued. (4)
 - (b) State FOUR points that would be listed as part of a *Permit to Work* for a typical task within the machinery spaces of a vessel. (4)
 - (c) State the time period over which a *Permit to Work* remains in force, outside of workshop areas. (2)

Permit to Work System and Safe Practices Onboard Ships (Code of Safe Working Practices)

The Code of Safe Working Practices emphasizes the Permit to Work system as a critical element for ensuring safety during specific onboard tasks. Here's a breakdown of issuance conditions, typical permit content, and validity periods:

(a) Conditions for Permit Issuance:

Before a Permit to Work is issued, several crucial conditions need to be met:

1. **Risk Assessment:** A thorough risk assessment for the planned task must be conducted. This identifies potential hazards like exposure to hazardous materials, working aloft, or using electrical equipment.
2. **Mitigation Measures:** For each identified risk, appropriate mitigation measures must be outlined in the permit. These may involve using personal protective equipment (PPE), establishing safe work procedures, or obtaining additional permits for specific activities (e.g., hot work permit for welding).
3. **Competent Personnel:** Only personnel deemed competent and qualified for the specific task, based on their training and experience, can be authorized to perform the work.

4. **Availability of Resources:** The permit should only be issued if the necessary resources, tools, and equipment required for the safe completion of the task are readily available.
5. **Isolation and Lockout Procedures:** For tasks involving machinery or electrical systems, proper isolation and lockout procedures must be established to prevent accidental energization or equipment operation during work.

(b) Typical Permit Content for Machinery Space Tasks:

A Permit to Work for a machinery space task would typically include the following four key points:

1. **Work Description:** A clear description of the task to be undertaken, specifying its location within the machinery space (e.g., valve maintenance on a specific engine) and any equipment involved.
2. **Safety Precautions:** Detailed safety precautions required for the task. This may include specifying required PPE (e.g., safety glasses, ear protection, respirators), ventilation requirements to control fumes or dust, and any hot work permits needed for activities like welding or brazing.
3. **Isolation Procedures:** A clear outline of the isolation procedures for any machinery or electrical systems involved in the task. This ensures no accidental energization or equipment operation during work.
4. **Standby Person:** Designation of a qualified standby person to be stationed outside the work area for monitoring purposes and to render assistance in case of emergencies.

(c) Permit Validity Period Outside Workshops:

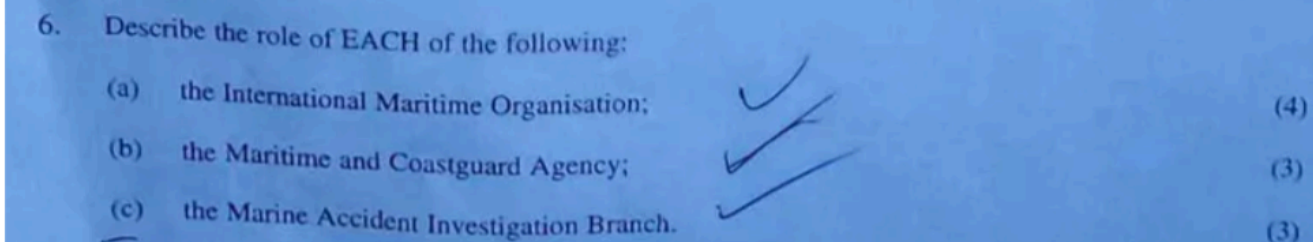
The validity period of a Permit to Work outside of workshop areas (e.g., within machinery spaces) is generally shorter compared to permits used in workshops (dedicated maintenance areas). This reflects the potentially dynamic environment in machinery spaces. Here's a guideline:

- **Outside Workshops:** Permits are typically valid for a **maximum of one shift (around 8 hours)**. This encourages review and renewal of the permit if the work extends beyond a single shift, ensuring continued risk assessment and adherence to safety precautions.
- **Workshops:** Permits in workshops (controlled environments) may have a slightly extended validity period, potentially lasting up to 24 hours depending on the specific task and the ship's safety management system.

Important Note: The specific validity period of a Permit to Work may vary depending on the company's safety management system and the complexity of the task. It's crucial to consult the ship's specific procedures for Permit to Work issuance and validity periods.

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6. Describe the role of EACH of the following:
 - (a) the International Maritime Organisation; (4)
 - (b) the Maritime and Coastguard Agency; (3)
 - (c) the Marine Accident Investigation Branch. (3)

Here's a breakdown of the roles played by each organization in maritime safety and regulation:

(a) International Maritime Organisation (IMO):

- **Global Regulator:** The IMO is a specialized agency of the United Nations responsible for setting international standards for safety, security, and environmental protection in shipping.
- **Treaty Development:** The IMO develops and maintains a comprehensive set of international treaties known as MARPOL (International Convention for the Prevention of Pollution from Ships), SOLAS (International Convention for the Safety of Life at Sea), and various others. These treaties establish mandatory regulations for aspects like pollution prevention, ship construction and equipment standards, maritime navigation practices, and search and rescue at sea.
- **Member State Cooperation:** The IMO facilitates cooperation between member states (countries) to ensure consistent implementation of these regulations across the globe.
- **Technical Guidance:** The IMO provides technical guidance and recommendations to member states on various maritime safety and environmental protection issues.

(b) Maritime and Coastguard Agency (MCA) [UK Specific]:

- **National Regulator:** The MCA acts as the national maritime administration for the United Kingdom. It enforces international regulations set by the IMO, as well as additional national legislations concerning maritime safety, security, and pollution prevention within UK territories.
- **Inspections and Audits:** The MCA conducts inspections of UK-flagged vessels and foreign ships calling at UK ports to verify compliance with international and national maritime regulations.
- **Certification and Enforcement:** The MCA issues various certificates related to maritime safety and pollution prevention for UK ships. They also have enforcement powers to take action against vessels found in violation of regulations.
- **Search and Rescue Coordination:** The MCA plays a vital role in coordinating maritime search and rescue (SAR) operations within the UK Search and Rescue Region.

Important Note: While the description above focuses on the UK's Maritime and Coastguard Agency (MCA), similar national maritime administrations exist in many countries to enforce international regulations and ensure maritime safety within their respective jurisdictions.

(c) Marine Accident Investigation Branch (MAIB) [UK Specific]:

- **Independent Investigator:** The MAIB is an independent body within the Department for Transport (DfT) in the UK. It investigates accidents involving UK ships worldwide and accidents involving non-UK ships within UK territorial waters.
- **Focus on Safety Improvement:** The MAIB's primary objective is not to assign blame but to determine the causes and contributing factors to marine accidents. Their investigations focus on identifying safety lessons learned to prevent similar accidents from occurring in the future.
- **Recommendations and Reports:** The MAIB publishes investigation reports with safety recommendations aimed at improving maritime safety practices across the industry. These recommendations are directed toward ship operators, regulatory bodies, and equipment manufacturers.

Please Note: The specific organizations responsible for maritime safety regulation and investigation may vary depending on the country. The descriptions above provide an example using UK-specific entities (MCA and MAIB).

Sources

info

1. www.researchgate.net/publication/297251656_TEAM_TRAINING_IN_SAFETY_AND_SECURITY_VIA_SIMULATION_A_PRACTICAL_DIMENSION_OF_MARITIME_EDUCATION_AND_TRAINING

