

ΕΞΕΤΑΣΤΙΚΗ ΠΕΡΙΟΔΟΣ ΦΕΒΡΟΥΑΡΙΟΥ 2025
ΜΑΘΗΜΑ: ΝΑΥΤΙΚΑ ΑΓΓΛΙΚΑ VI, ΣΤ ΕΞΑΜΗΝΟΥ
ΘΕΜΑΤΑ

EXERCISE 1. Reading comprehension. Read the text and do exercises (a) and (b).

Incident Overview: A crude oil tanker with a gross tonnage of 150,000 GT suffered a complete power failure (blackout) while anchored in the Gulf of Guinea. The vessel had recently completed a loading operation and was preparing to commence its voyage. The blackout rendered the ship immobile, posing potential environmental and navigational risks.

Key Factors Leading to the Blackout:

- **Hull Biofouling:** Extensive marine growth on the hull, including barnacles and algae, caused increased drag and strain on the propulsion system, which contributed to the power failure.
- **Cooling System Inefficiency:** Biofouling severely clogged the seawater intake system, reducing cooling efficiency and causing the engine to overheat.
- **Neglect of the Planned Maintenance System (PMS):** The tanker's maintenance schedule failed to adequately address biofouling management, including regular hull cleaning and seawater intake inspections.
- **Environmental Factors:** Operating in nutrient-rich tropical waters led to accelerated biofouling growth due to favourable conditions for marine organism proliferation.

Consequences of the Incident:

- **Operational Disruptions:** The ship was immobilised for hours, delaying crude oil transport and requiring towing assistance to the nearest port.
- **Safety Risks:** The vessel's immobility posed a risk of grounding or collision, especially in a high-traffic anchorage zone.
- **Financial Implications:** The tanker's owners incurred significant costs for emergency response, hull cleaning, repairs, and operational delays.

Lessons Learned and Preventive Measures:

- ____ (1) ____ regular underwater inspections to detect and address biofouling early.
- ____ (2) ____ advanced antifouling coatings during dry-docking to minimise marine growth.
- ____ (3) ____ crew training on recognising and mitigating biofouling risks.
- ____ (4) ____ the Planned Maintenance System to prioritise hull and cooling system maintenance.
- ____ (5) ____ marine experts to adopt innovative antifouling strategies

(a) What are the Lessons Learned and Preventive Measures from this case? Use the correct verb to start each bullet. [1 p.]

applying/ revising/ implementing/ collaborating with/ enhancing

(b) Match to make full summary sentences, based on the text. [1 p.]

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|--|--|
| 1. The vessel experienced... | A. the pace of biofouling growth. |
| 2. The tropical waters of the Gulf of Guinea increased... | B. the emergency response and repairs. |
| 3. The intensified drag and strain on the propulsion system resulted in... | C. timely inspections of the hull. |
| 4. The vessel's planned maintenance system did not include... | D. operational disruptions during the incident |
| 5. The tanker's owners incurred high costs for... | E. engine overheating |

EXERCISE 2. Fill in the gaps with the words in the box: [2 p.]

jurisdictions	emissions	dispersants	contingency	booms
ratified	soot	comminuted	bypassed	pleaded

1. The MARPOL convention has been ____ and implemented by virtually every flag state.
2. Pollution prevention and ____ planning are two issues of great interest for deck officers.
3. ____ is a type of air pollution that can be seen from the ship's funnel.
4. CO₂ ____ of carbon dioxide into the atmosphere harms the ozone layer.
5. ____ and disinfected sewage can be discharged at a distance of 3 nm from the nearest land.
6. The disposal of plastic constitutes a criminal offence in most ____.
7. Oil clearance team, stand by. Oil ____ will be available in 10 minutes.
8. We will contain the pollution with oil _____. Stay in vicinity of pollution and wait for orders.
9. The shipping company ____ guilty and paid a fine.
10. The crew deliberately ____ the oily water separator and discharged untreated oily bilge water to the sea.

EXERCISE 3. Write the acronyms in full. [2.p]

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|----------|----------|
| 1. OCM | 6. SOPEP |
| 2. VOCs | 7. VRP |
| 3. ODME | 8. AMVER |
| 4. SECAs | 9. TML |
| 5. PSSAs | 10. PSN |

EXERCISE 4. Are the statements True or false? [2 p.]

1. Most current legislation demands that treated bilge water must contain less than 50 ppm.
2. Special Areas are listed in MARPOL Annex VI.
3. Oily water discharge is regulated in MARPOL Annex I.
4. The prevention of pollution by dangerous packaged goods is covered by MARPOL Annex II.
5. Ships carry 50% of the world trade.
6. Scrubbers are filters that remove pollutants from ship exhausts.
7. MARPOL Annex V addresses garbage pollution.
8. The Exxon Valdez oil spilled occurred in Prince William Sound (Alaska) in 1994.
9. Shipping is a less environmentally friendly mode of transport compared to aviation.
10. As per IMSBC Code, Group B cargo, such as nickel ore, poses the risk of liquefaction.

EXERCISE 5. Match to make correct collocations. [2 p.]

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|-------------------|---------------|
| 1. Flora and | circumstances |
| 2. Domestic | evidence |
| 3. Clear | grounds |
| 4. Tamper with | fauna |
| 5. Prevailing | waste |
| 6. Relieving | fuel |
| 7. Obstruction of | officer |
| 8. Alternative | combustion |
| 9. Injection | justice |
| 10. Spontaneous | nozzle |