

Marine Environmental Awareness Workbook

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1. Environmental challenges

Exercises – Environmental challenges

The shipping industry is facing many environmental challenges. Everyone working on a ship has personal knowledge, ideas and experience about environmental aspects of shipping. In this exercise, you are asked to give your personal opinion about environmental issues and to share this with colleagues.

1. Make a list of environmental challenges for the shipping industry.
Give your opinion about which are the most important challenges:
 - a. Select 5 issues.
 - b. Rank the issues from 1-5, with 1 being the most important.
 - c. Explain why you choose these 5, in this order.
2. Discuss your list with two different people on board of your ship, including another officer.
 - a. Write a short report of these discussions
 - b. Who did you talk to?
 - c. Did your colleagues agree with your top 5?
 - d. Did they mention environmental challenges that were not in your top 5? Which?
 - e. Did the others mention things you had not thought of before or that you did not know about (new insights)? What were they?

Questions – Environmental challenges

- 1) Describe procedures and associated equipment to prevent oil pollution on board your vessel.
- 2) Describe procedures and associated equipment related to the handling of solid waste on board your vessel.
- 3) Describe your personal involvement with handling oily waste on board your vessel.
- 4) Describe your personal involvement with handling solid waste on board your vessel.
- 5) Describe procedures and associated equipment that minimize emissions of sulphur oxides (SOx) on board your vessel.
- 6) In your opinion, what is the urgency and importance of regulating CO₂ emissions from ships.
- 7) List three measures mentioned in the Ship Energy Efficiency Management Plan (SEEMP), that you (might be) involved in.
- 8) Describe procedures and associated equipment regarding ballast water management on board your vessel.
- 9) In your opinion, what is the purpose of having a list of hazardous materials on ships (the Inventory of Hazardous Materials)

2. Sustainable shipping

Questions – Sustainable shipping

10. Describe, in your own words, the most important aspects of the three P's of sustainability.
11. Describe one best practice related to sustainable shipping that takes place onboard your ship or that is initiated by the shipping company that you work for.
12. Describe one best practice related to sustainable shipping that takes place onboard another ship or another shipping company that you have heard about.

Exercise – Sustainable shipping

The People P is a part of sustainable development and stands for care for human capital. One aspect is societal – the acceptance by society, which can be seen as a license to operate. Losing support from society can have extensive negative business consequences.

Maritime transport is essential to the world's economy as over 90% of the world's trade is carried by sea. Shipping provides a vital service, on which the entire global economy depends. Where shipping competes directly with other means of transport, shipping remains by far the most energy efficient and it has a good safety and environmental record.

'Logically, in the light of these facts, one would surely expect its [shipping's] public image to be a favorable one. And yet, we all know that that is not the case' (Mr. Mitropoulos, Secretary-General of the IMO, 2005).

In this exercise, you are asked to give your opinion about the image and the identity of shipping and to share this with colleagues:

Image = the way others see you
Identity = who you actually are or want to be

1. What is the current image of shipping and seafarers? Or, what does the general public think about seafarers and shipping?
State this image in at least 10 keywords.
Does the image reflect the actual identity of shipping and seafarers?
2. What determines this image? Or, how did shipping get this image?
Media?
Environmental groups?
Movies?
Seafarers (from the past)?
You?
Other influences?

3. Is a good image important? For the shipping industry? For shipping companies? For you? Why (not)?
4. How can the image of shipping and seafarers be changed? (1 or 2 concrete actions) Whose responsibility is this?
5. Share your conclusions in point 3 and 4 (Is a good image important? How can the image of shipping and seafarers be changed?) with two other people on board of your ship, including another officer.
 - Write a short report of these discussions
 - Who did you talk to?
 - Did your colleagues mention things you had not thought of (new insights)? What were they?

3. Prevention of pollution

Exercise – Prevention of pollution

In addition to national and international regulations, many procedures and technical installations to address environmental challenges are available for use on board ships or in ports. In this exercise, you are asked to write down these procedures and technical installations for a selection of environmental challenges and to give your opinion about responsibilities for implementation and use of these solutions.

Please select **either** solid waste **or** energy efficiency (exercise **A**) for this exercise. In addition, choose one additional challenge of interest. (exercise **B**)

A) Solid waste

- Write down all available procedures and technical installations, on board and in port, aimed to minimize the environmental impact of solid waste.
- Determine for every solution (procedure/installation) who is responsible for proper implementation and use.
- To your opinion, which procedures/installations are most effective?

OR

Energy efficiency

- Write down all available procedures and technical installations, on board and in port, aimed to minimize the use of energy by ships.
- Determine for every solution (procedure/installation) who is responsible for proper implementation and use.
- To your opinion, which procedures/installations are most effective?

AND

B) Topic of choice

- Choose one additional challenge.
- Write down all available procedures and technical installations, on board and in port, aimed to minimize the effects.
- Determine for every solution (procedure/installation) who is responsible for proper implementation and use.
- To your opinion, which procedures/installations are most effective?

Share your answers (solid waste, energy efficiency or topic of choice) with two other people on board of your ship, including another officer.

- Did your colleagues mention things you had not thought of (new insights)? What were they?

4. Personal actions

Questions – Personal Actions

13. In your opinion, which of your activities on board have a negative impact on the environment (name at least three)?
14. Describe three situations where proper behavior of ships' crew made (or makes) a difference for the marine environment.
15. Describe at least five actions you take to comply with environmental regulations. Describe at least three **additional** actions you can take to minimize the environmental impact of shipping.
16. Describe at least one action you can take to ensure better compliance by ratings

Exercise – Personal Actions

In addition to your own activities on board, officers are also responsible for leading and motivating the crew to do the right thing. You can influence crew behavior. In this exercise, you are asked to prepare a talk to the crew regarding waste management and procedures on board.

1. Write down a 'talk to the crew' (1 minute) to prepare the crew for their responsibilities regarding the handling of solid waste. Choose one of the approaches below:
 - Leading by example (show how it is done)
 - Hierarchical (I am your boss and I say so)
 - Mentoring (I will show you how it is done and why...)
 - Appeal to a sense of pride (pride to be a seaman, a professional...)
 - Personal (I have seen the effects of oil in the environment and I would like you to...)
 - Educational (These pictures show the effects of plastics, so please think twice...)
 - Punishment (Do it again and...)
2. Discuss the talk with another officer on board your ship. Ask for suggestions.
3. Give the talk to the crew.

5. Document status

Issue no.	Date	Author
2081 A	01.10.2013	
2081A1	16.08.2018	
2081 A2	28.08.2019	IG
2081 2.0	25.11.2020	IG

6. Changes in the document

Issue no.	Paragraph no.	Description
A1	1.7 6	Updated text Updated evaluation form
A2	1.6	Replaced “CBT” with “e-learning” Module 187 split into 393 and 394 Removed reference to FAQ
2.0		New Ocean TG course template. Split procedure and workbook, changed version numbering