

SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING
AND WATCHKEEPING
12th session
Agenda item 6

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COMPREHENSIVE REVIEW OF THE 1978 STCW CONVENTION AND CODE

Proposed draft amendments to the 1978 STCW Convention and Code to address gap No. 123

Submitted by ICS

SUMMARY

Executive summary: This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap No. 123.

*Strategic direction,
if applicable:* 6

Output: 6.17

Action to be taken: Paragraph 12

Related documents: HTW 11/11 and HTW 12/6

Background

1 The Sub-Committee, at its eleventh session, agreed to the list of gaps identified in the STCW Convention and Code, as set out in annex 1 to document HTW 11/WP.4. The Sub-Committee also agreed to the commencement of phase 2 of the comprehensive review (HTW 11/11, paragraphs 6.34 and 6.35).

2 This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap No. 123, to specifically address:

- .1 information management, situational awareness, stress management and workload management when entering and working within, and planning rescue of personnel from enclosed spaces on board ships; and
- .2 effective communication, stress management, working in a multicultural environment, mentoring, mental health issues and other twenty-first century skills.

Discussion

Training in relation to entering and working within, as well as rescue from enclosed spaces aboard ships

3 Chapters II, III, IV, V and VI of the STCW Code address training for special category of ships, the various departments on board, as well as for new seafarers. Apart from seafarers working on specialized ships such as bulk liquid cargo carriers, there are no specific training requirements provided for higher ranks in relation to enclosed space entry procedures (they are provided only for able seafarer deck, engine and electro-technical rating within chapters II and III).

4 ICS have identified the following functions when preparing the draft amendments:

- .1 the Function – "Controlling the operation of the ship and care for persons on board at the operational level" was identified for amendments to the KUPs and "Criteria for evaluating competence" for tables A-II/1, A-II/3, A-III/1 and A-III/6;
- .2 the Function – "Controlling the operation of the ship and care for persons on board at the management level" was identified for amendments to the KUPs and "Criteria for evaluating competence" for tables A-II/2, and A-III/2;
- .3 the Function – "Controlling the operation of the ship and care for persons on board at the support level" was identified for amendments to the KUPs and "Criteria for evaluating competence" for tables A-II/5, A-III/5, and A-III/7; and
- .4 Sections B-II/4 (*Guidance regarding the training and certification of ratings forming part of a navigational watch*) and Section B-III/4 (*Guidance regarding the training and certification of ratings forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room*) were identified for the watchkeepers addressed under regulations II/4 and III/4, respectively.

Training in relation to developing twenty-first century skills

5 Twenty-first century skills are crucial to equip seafarers with the abilities to adapt, innovate and thrive in a dynamic work environment on board. These skills are essential for operating in an increasingly multicultural work environment where interpersonal skills play a vital role.

6 ICS have identified the following functions when preparing the draft amendments:

- .1 the Function – "Controlling the operation of the ship and care for persons on board at the operational level" was identified for modification of a competency and amendments to the KUPs for tables A-II/1, A-III/1 and A-III/6;
- .2 the Function – "Controlling the operation of the ship and care for persons on board at the management level" was identified for amendments to the KUPs for tables A-II/2, and A-III/2;
- .3 Sections B-II/3 (*Guidance regarding the certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage*), B-II/4 (*Guidance regarding the training and certification of ratings forming part of a navigational watch*) and B-III/4 (*Guidance regarding the*

training and certification of ratings forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room) were identified for the watchkeepers addressed under regulations II/3, II/4 and III/4, respectively.

Description of the annexes

7 The draft amendments to the STCW Code to provide for specific training requirements in relation to entering and working within enclosed spaces are detailed in annexes 1 and 2 of this document.

8 The draft amendments to the STCW Code to provide for training requirements in relation to developing twenty-first century skills are detailed in annexes 3 and 4 of this document.

9 Considering that the proposed draft amendments for the two issues above address the same competences, for sake of clarity annexes 5 and 6 contain the consolidated text which includes all the proposed draft amendments.

Information to support the proposed amendments

10 Taking into account the information for the submission of proposals for phase 2 of the comprehensive review of the STCW Convention and Code, as set out in document HTW 12/6 (Secretariat), information to support the proposed amendments is set out below:

Gap No. 123	
Related documents, if any:	ISWG-STCW 1/2/19
Action requested:	Modification to sections A-II/1, A-II/2, A-II/3, A-II/5, A-III/1, A-III/2, A-III/5, A-III/6 and A-III/7, and sections B-II/3, B-II/4 and B-III/4
Available evidence, data, research, etc., if any, to support the proposed amendments:	N/A
Voluntary assessment on the possible cumulative impact (if the proposal aims at adding new training requirements, provide information on the cumulative impact on seafarer's training/certification and possible measures to address the impact):	Information on the cumulative impact: No impact on certification within chapters II and III due to the proposed modifications set out in the annexes. Moderate impact on delivery and training hours due to KUPs expanded to include specific training on enclosed spaces. Impact on delivery and training hours due to a new competency introduced for some ranks and KUPs expanded to include specific training on twenty-first century skills. No impact expected on Administration. Possible measures to address the cumulative impact: No suggestion.

Proposal

11 It is proposed to amend sections:

- .1 A-II/1, A-II/2, A-II/3, A-II/5, A-III/1, A-III/2, A-III/5, A-III/6 and A-III/7, as set out in annex 5; and
- .2 B-II/3, B-II/4 and B-III/4, as set out in annex 6.

Action requested of the Sub-Committee

12 The Sub-Committee is invited to consider the information and the proposals in paragraph 11 and annexes 1, 2, 3, 4, 5 and 6, and take action, as appropriate.

ANNEX 1*

PROPOSED DRAFT AMENDMENTS TO SECTIONS A-II/1, A-II/2, A-II/3, A-II/5, A-III/1, A-III/2, A-III/5, A-III/6 AND A-III/7 OF THE CODE

CHAPTER II

Standards regarding the master and deck department

Section A-II/1

Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

1 Table A-II/1 (Specification of minimum standard of competence for officers in charge of a navigational watch on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership and teamworking skills	Working knowledge of shipboard personnel management and training A knowledge of related international maritime conventions and recommendations, including but not limited to those related to enclosed spaces, and national legislation Ability to apply task and workload management, including: .1 planning and coordination	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Non-routine operations, such as but not limited to entering and working within as well as rescue from enclosed spaces, are demonstrated to be in

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication onboard and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and consider generated options		accordance with recommendations¹ Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel status and operational status and external environment Decisions are most effective for the situation

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.3 selecting course of action .4 evaluation of outcome effectiveness		
...	...	...	...

"

Section A-II/2

Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more

2 Table A-II/2 (Specification of minimum standard of competence for masters and chief mates on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use of leadership and managerial skill	Knowledge of shipboard personnel management and training A knowledge of related international maritime conventions and recommendations, including but not limited to those related to enclosed spaces, and national legislation Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management:	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations, such as but not limited to entering and working within as well as rescue from enclosed spaces, are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in accordance with recommendations¹

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and generate options .3 selecting course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		Communication is clearly and unambiguously given and received Effective leadership behaviours are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules
...	...	...	...

..

Section A-II/3

Mandatory minimum requirements for certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage, engaged on near-coastal voyages

3 Table A-II/3 (Specification of minimum standard of competence for officers in charge of a navigational watch and for masters on ships of less than 500 gross tonnage engaged on near-coastal voyages) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions and recommendations including but not limited to those related to enclosed spaces, concerning safety of life at sea, security and protection of the marine environment	Assessment of evidence obtained from examination or approved training	Legislative requirements relating to safety of life at sea, including for non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces, security and protection of the marine environment are correctly identified
...	...	...	...

"

Section A-II/5

Mandatory minimum requirements for certification of ratings as able seafarer deck

4 Table A-II/5 (Specification of minimum standards of competence of ratings as able seafarer deck) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety precautions	Working knowledge of safe working practices and personal shipboard safety including: .1 working aloft .2 working over the side .3 entering and working in, as well as rescue from enclosed spaces .4 permit to work systems .5 line handling .6 lifting techniques and methods of preventing back injury .7 electrical safety .8 mechanical safety .9 chemical and biohazard safety .10 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are observed and appropriate safety and protective equipment is correctly used at all times
...	...	...	...

..

CHAPTER III

Standards regarding engine department

Section A-III/1

Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or as designated duty engineers in a periodically unmanned engine-room

5 Table A-III/1 (Specification of minimum standard of competence for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership and teamworking skills	Working knowledge of shipboard personnel management and training A knowledge of related international maritime conventions and recommendations including but not limited to those related to enclosed spaces, and national legislation Ability to apply task and workload management, including: .1 planning and co-ordination .2 personnel assignment .3 time and resource constraints	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements. Operations are demonstrated to be in accordance with applicable rules Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are demonstrated to be in accordance with recommendations¹

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and consider generated options .3 selecting course of action .4 evaluation of outcome effectiveness		Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation
...	...	...	...

Section A-III/2

Mandatory minimum requirements for certification of chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more

6 Table A-III/2 (Specification of minimum standard of competence for chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use leadership and managerial skills	Knowledge of shipboard personnel management and training A knowledge of international maritime conventions and recommendations including but not limited to those related to enclosed spaces, and related national legislation Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management:	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experience .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and generate options .3 select course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		accordance with recommendations¹ Communication is clearly and unambiguously given and received Effective leadership behaviours are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules

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Section A-III/5

Mandatory minimum requirements for certification of ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

7 Table A-III/5 (Specification of minimum standard of competence for ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety procedures	Working knowledge of safe working practices and personal shipboard safety, including: .1 electrical safety .2 lockout/tag-out .3 mechanical safety .4 permit to work systems .5 working aloft .6 entering and working in, as well as rescue from enclosed spaces .7 lifting techniques and methods of preventing back injury .8 chemical and biohazard safety .9 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are observed and appropriate safety and protective equipment is correctly used at all times

"

Section A-III/6

Mandatory minimum requirements for certification of electro-technical officers

8 Table A-III/6 (Specification of minimum standard of competence for electro-technical officers) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership and teamworking skills	Working knowledge of shipboard personnel management and training Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in accordance with recommendations¹ Communication is clearly and

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 Situation and risk assessment .2 Identify and consider generated options .3 Selecting course of action .4 Evaluation of outcome effectiveness		unambiguously given and received Effective leadership behaviours are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation
...	...	...	...

"

Section A-III/7

Mandatory minimum requirements for certification of electro-technical rating

9 Table A-III/7 (Specification of minimum standard of competence for electro-technical ratings) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety procedures	Working knowledge of safe working practices and personal shipboard safety, including: .1 electrical safety .2 lockout/tag-out .3 mechanical safety .4 permit to work systems .5 working aloft .6 entering and working in, as well as rescue from enclosed spaces .7 lifting techniques and methods of preventing back injury .8 chemical and biohazard safety .9 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are observed and appropriate safety and protective equipment is correctly used at all times

"

ANNEX 2*

PROPOSED DRAFT AMENDMENTS TO SECTIONS B-II/4 AND B-III/4 OF THE CODE

CHAPTER II

Guidance regarding the master and the deck department

Section B-II/4

Guidance regarding the training and certification of ratings forming part of a navigational watch

1 Section B-II/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in table A-II/4 of this Code, Parties are encouraged, for safety reasons, to include the following subjects in the training of ratings forming part of a navigational watch:

- .1 a basic knowledge of the International Regulations for Preventing Collisions at Sea, 1972, as amended;
- .2 rigging a pilot ladder;
- .3 an understanding of wheel orders given by pilots in English;
- .4 training for proficiency in survival craft and rescue boats;
- .5 support duties when berthing and unberthing and during towing operations;
- .6 a basic knowledge of anchoring;
- .7 a basic knowledge of dangerous cargoes;
- .7bis** a basic knowledge of procedures related to entering and working in, and rescue from enclosed spaces in accordance with recommendations;¹
- .8 a basic knowledge of stowage procedures and arrangements for bringing stores on board; and
- .9 a basic knowledge of deck maintenance and of tools used on deck".

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

CHAPTER III

Guidance regarding the engine department

Section B-III/4

Guidance regarding the training and certification of ratings forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

2 Section B-III/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in section A-III/4 of this Code, Parties are encouraged, for safety reasons, to include the following items in the training of ratings forming part of an engineering watch:

- .1 a basic knowledge of routine pumping operations, such as bilge, ballast and cargo pumping systems;
- .1bis a basic knowledge of procedures related to entering and working in, and rescue from enclosed spaces in accordance with recommendations;¹
- .2 a basic knowledge of electrical installations and the associated dangers;
- .3 a basic knowledge of maintenance and repair of machinery and tools used in the engine-room; and
- .4 a basic knowledge of stowage and arrangements for bringing stores on board".

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

ANNEX 3*

PROPOSED DRAFT AMENDMENTS TO SECTIONS A-II/1, A-II/2, A-III/1, A-III/2 AND A-III/6 OF THE CODE

CHAPTER II

Standards regarding the master and deck department

Section A-II/1

Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

1 Table A-II/1 (Specification of minimum standard of competence for officers in charge of a navigational watch on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	A knowledge of related international maritime conventions and recommendations, and national legislation Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication onboard and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation		Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel status and operational status and external environment Decisions are most effective for the situation

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and consider generated options .3 selecting course of action .4 evaluation of outcome effectiveness		
...	...	...	...

Section A-II/2

Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more

2 Table A-II/2 (Specification of minimum standard of competence for masters and chief mates on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use of leadership and managerial skill	Knowledge of shipboard personnel management and training A knowledge of the importance of interpersonal skills, including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of related international maritime conventions and recommendations, and national legislation Ability to apply task and workload	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and generate options		vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.3 selecting course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		
...	...	...	...

"

CHAPTER III Standards regarding engine department

Section A-III/1

Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or as designated duty engineers in a periodically unmanned engine-room

6 Table A-III/1 (Specification of minimum standard of competence for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of related international maritime conventions and recommendations,	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements. Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	and national legislation Ability to apply task and workload management, including: .1 planning and co-ordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques:		interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.1 situation and risk assessment .2 identify and consider generated options .3 selecting course of action .4 evaluation of outcome effectiveness		
...	...	...	...

..

Section A-III/2

Mandatory minimum requirements for certification of chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more

7 Table A-III/2 (Specification of minimum standard of competence for chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use leadership and managerial skills	Knowledge of shipboard personnel management and training A knowledge of the importance of interpersonal skills, including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of international maritime conventions and recommendations, and related national legislation	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experience .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment		accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.2 identify and generate options .3 select course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		

"

Section A-III/6

Mandatory minimum requirements for certification of electro-technical officers

10 Table A-III/6 (Specification of minimum standard of competence for electro-technical officers) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences 4 assertiveness and leadership, including motivation .5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 Situation and risk assessment .2 Identify and consider generated options .3 Selecting course of action .4 Evaluation of outcome effectiveness		operational status and external environment Decisions are most effective for the situation
...	...	...	...

"

ANNEX 4*

PROPOSED AMENDMENTS TO SECTIONS B-II/3, B-II/4 AND B-III/4 OF THE CODE

CHAPTER II

Guidance regarding the master and the deck department

Section B-II/3

Guidance regarding the certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage

1 Section B-II/3 is proposed to be amended, as follows:

"1 In addition to the requirements stated in table A-II/3 of this Code, Parties are encouraged, to include the following subjects in the training of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage:

.1 an awareness of the importance of interpersonal skills and basic knowledge of:

.1.1 effective communication;

.1.2 stress management;

.1.3 working in multicultural environment;

.1.4 management of change;

.1.5 mental health awareness; and

.1.6 mentoring.

(See section B-II/1 for additional guidance.)"

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

Section B-II/4

Guidance regarding the training and certification of ratings forming part of a navigational watch

1 Section B-II/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in table A-II/4 of this Code, Parties are encouraged, for safety reasons, to include the following subjects in the training of ratings forming part of a navigational watch:

.1 a basic knowledge of the International Regulations for Preventing Collisions at Sea, 1972, as amended;

.1bis an awareness of the importance of interpersonal skills and basic knowledge of:

.1.1 effective communication;

.1.2 stress management;

.1.3 working in multicultural environment;

.1.4 management of change;

.1.5 mental health awareness; and

.1.6 mentoring;

.2 rigging a pilot ladder;

.3 an understanding of wheel orders given by pilots in English;

.4 training for proficiency in survival craft and rescue boats;

.5 support duties when berthing and unberthing and during towing operations;

.6 a basic knowledge of anchoring;

.7 a basic knowledge of dangerous cargoes;

.8 a basic knowledge of stowage procedures and arrangements for bringing stores on board; and

.9 a basic knowledge of deck maintenance and of tools used on deck."

CHAPTER III Guidance regarding the engine department

Section B-III/4

Guidance regarding the training and certification of ratings forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

2 Section B-III/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in section A-III/4 of this Code, Parties are encouraged, for safety reasons, to include the following items in the training of ratings forming part of an engineering watch:

.1 a basic knowledge of routine pumping operations, such as bilge, ballast and cargo pumping systems;

.1**bis** an awareness of the importance of interpersonal skills and basic knowledge of:

.1.1 effective communication;

.1.2 stress management;

.1.3 working in multicultural environment;

.1.4 management of change;

.1.5 mental health awareness; and

.1.6 mentoring;

.2 a basic knowledge of electrical installations and the associated dangers;

.3 a basic knowledge of maintenance and repair of machinery and tools used in the engine-room; and

.4 a basic knowledge of stowage and arrangements for bringing stores on board."

ANNEX 5*

CONSOLIDATED TEXT OF PROPOSED DRAFT AMENDMENTS TO SECTIONS A-II/1, A-II/2, A-II/3, A-II/5, A-III/1, A-III/2, A-III/5, A-III/6 AND A-III/7 OF THE CODE

CHAPTER II

Standards regarding the master and deck department

Section A-II/1

Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

1 Table A-II/1 (Specification of minimum standard of competence for officers in charge of a navigational watch on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Non-routine operations, such as but not limited to entering and working within as well as rescue from enclosed spaces,

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and " grey shading" to highlight all modifications and new insertions, including deleted text.

	.6 mentoring A knowledge of related international maritime conventions and recommendations, including but not limited to those related to enclosed spaces, and national legislation Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication onboard and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation		are demonstrated to be in accordance with recommendations¹ Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills, are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel status and operational status and external environment Decisions are most effective for the situation
--	---	--	---

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

	.5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and consider generated options .3 selecting course of action .4 evaluation of outcome effectiveness		
...	...	...	...

"

Section A-II/2

Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more

2 Table A-II/2 (Specification of minimum standard of competence for masters and chief mates on ships of 500 gross tonnage or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use of leadership and managerial skill	Knowledge of shipboard personnel management and training A knowledge of the importance of interpersonal skills, including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of related international maritime conventions and recommendations, including but not limited to those related to enclosed spaces, and national legislation	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations, such as but not limited to entering and working within as well as rescue from enclosed spaces, are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in accordance with recommendations¹

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment		Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills, are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.2 identify and generate options .3 selecting course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		
...	...	...	...

"

Section A-II/3

Mandatory minimum requirements for certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage, engaged on near-coastal voyages

3 Table A-II/3 (Specification of minimum standard of competence for officers in charge of a navigational watch and for masters on ships of less than 500 gross tonnage engaged on near-coastal voyages) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions and recommendations including but not limited to those related to enclosed spaces, concerning safety of life at sea, security and protection of the marine environment	Assessment of evidence obtained from examination or approved training	Legislative requirements relating to safety of life at sea, including for non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces, security and protection of the marine environment are correctly identified
...	...	...	...

"

Section A-II/5

Mandatory minimum requirements for certification of ratings as able seafarer deck

4 Table A-II/5 (Specification of minimum standards of competence of ratings as able seafarer deck) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety precautions	Working knowledge of safe working practices and personal shipboard safety including: .1 working aloft .2 working over the side .3 entering and working in, as well as rescue from enclosed spaces .4 permit to work systems .5 line handling .6 lifting techniques and methods of preventing back injury .7 electrical safety .8 mechanical safety .9 chemical and biohazard safety .10 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within, as well as rescue from, enclosed spaces, are observed and appropriate safety and protective equipment is correctly used at all times
...	...	...	...

..

CHAPTER III

Standards regarding engine department

Section A-III/1

Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or as designated duty engineers in a periodically unmanned engine-room

5 Table A-III/1 (Specification of minimum standard of competence for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of related international	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements. Operations are demonstrated to be in accordance with applicable rules Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are demonstrated to be in accordance with recommendations¹

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	maritime conventions and recommendations including but not limited to those related to enclosed spaces, and national legislation Ability to apply task and workload management, including: .1 planning and co-ordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences .4 assertiveness and leadership, including motivation		Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 situation and risk assessment .2 identify and consider generated options .3 selecting course of action .4 evaluation of outcome effectiveness		
...	...	...	...

"

Section A-III/2

Mandatory minimum requirements for certification of chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more

6 Table A-III/2 (Specification of minimum standard of competence for chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the management level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Use leadership and managerial skills	Knowledge of shipboard personnel management and training A knowledge of the importance of interpersonal skills, including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring A knowledge of international maritime conventions and recommendations including but not limited to those related to enclosed	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 approved simulator training	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are demonstrated to be in accordance with applicable rules Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	spaces, and related national legislation Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment .3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experience .4 assertiveness and leadership, including motivation .5 obtaining and maintaining situation awareness Knowledge and ability to apply decision-making techniques:		accordance with recommendations¹ Communication is clearly and unambiguously given and received Effective leadership behaviours, including interpersonal skills are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation Operations are demonstrated to be effective and in accordance with applicable rules

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.1 situation and risk assessment .2 identify and generate options .3 select course of action .4 evaluation of outcome effectiveness Development, implementation, and oversight of standard operating procedures		

"

Section A-III/5

Mandatory minimum requirements for certification of ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

7 Table A-III/5 (Specification of minimum standard of competence for ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety procedures	Working knowledge of safe working practices and personal shipboard safety, including: .1 electrical safety .2 lockout/tag-out .3 mechanical safety .4 permit to work systems .5 working aloft .6 entering and working in, as well as rescue from, enclosed spaces .7 lifting techniques and methods of preventing back injury .8 chemical and biohazard safety .9 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within, as well as rescue from, enclosed spaces are observed and appropriate safety and protective equipment is correctly used at all times

"

Section A-III/6

Mandatory minimum requirements for certification of electro-technical officers

8 Table A-III/6 (Specification of minimum standard of competence for electro-technical officers) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at operational level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Application of leadership, interpersonal and teamworking skills	Working knowledge of shipboard personnel management and training An understanding of interpersonal skills including: .1 effective communication .2 stress management .3 working in multicultural environment .4 management of change .5 mental health awareness .6 mentoring Ability to apply task and workload management, including: .1 planning and coordination .2 personnel assignment	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved in-service experience .3 practical demonstration	The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned Training objectives and activities are based on assessment of current competence and capabilities and operational requirements Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks Non-routine operations such as but not limited to entering and working within as well as rescue from enclosed spaces are planned and resources are allocated as needed in correct priority to perform the necessary tasks and in accordance with recommendations¹ Communication is clearly and

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	.3 time and resource constraints .4 prioritization Knowledge and ability to apply effective resource management: .1 allocation, assignment, and prioritization of resources .2 effective communication on board and ashore .3 decisions reflect consideration of team experiences 4 assertiveness and leadership, including motivation .5 obtaining and maintaining situational awareness Knowledge and ability to apply decision-making techniques: .1 Situation and risk assessment .2 Identify and consider generated options .3 Selecting course of action .4 Evaluation of outcome effectiveness		unambiguously given and received Effective leadership behaviours, including interpersonal skills, are demonstrated Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment Decisions are most effective for the situation

"

Section A-III/7

Mandatory minimum requirements for certification of electro-technical rating

9 Table A-III/7 (Specification of minimum standard of competence for electro-technical ratings) is proposed to be amended, as follows:

"Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
...	...	...	...
Apply occupational health and safety procedures	Working knowledge of safe working practices and personal shipboard safety, including: .1 electrical safety .2 lockout/tag-out .3 mechanical safety .4 permit to work systems .5 working aloft .6 entering and working in, as well as rescue from, enclosed spaces .7 lifting techniques and methods of preventing back injury .8 chemical and biohazard safety .9 personal safety equipment	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard personnel and the ship are observed at all times Safe working practices, including for non-routine operations such as but not limited to entering and working within, as well as rescue from enclosed spaces, are observed and appropriate safety and protective equipment is correctly used at all times

"

ANNEX 6*

CONSOLIDATED TEXT OF PROPOSED DRAFT AMENDMENTS TO SECTIONS B-II/3, B-II/4 AND B-III/4 OF THE CODE

CHAPTER II

Guidance regarding the master and the deck department

Section B-II/3

Guidance regarding the certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage

1 Section B-II/3 is proposed to be amended, as follows:

"1 In addition to the requirements stated in table A-II/3 of this Code, Parties are encouraged, to include the following subjects in the training of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage:

.1 an awareness of the importance of interpersonal skills and basic knowledge of:

.1.1 effective communication;

.1.2 stress management;

.1.3 working in multicultural environment;

.1.4 management of change;

.1.5 mental health awareness; and

.1.6 mentoring.

(See section B-II/1 for additional guidance.)"

* Tracked changes are used based on the existing provisions, which are provided in document HTW 12/6/1, i.e. "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

Section B-II/4

Guidance regarding the training and certification of ratings forming part of a navigational watch

1 Section B-II/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in table A-II/4 of this Code, Parties are encouraged, for safety reasons, to include the following subjects in the training of ratings forming part of a navigational watch:

.1 a basic knowledge of the International Regulations for Preventing Collisions at Sea, 1972, as amended;

.1bis an awareness of the importance of interpersonal skills and basic knowledge of:

.1.1 effective communication;

.1.2 stress management;

.1.3 working in multicultural environment;

.1.4 management of change;

.1.5 mental health awareness; and

.1.6 mentoring;

.2 rigging a pilot ladder;

.3 an understanding of wheel orders given by pilots in English;

.4 training for proficiency in survival craft and rescue boats;

.5 support duties when berthing and unberthing and during towing operations;

.6 a basic knowledge of anchoring;

.7 a basic knowledge of dangerous cargoes;

.7bis a basic knowledge of procedures related to entering and working in, and rescue from enclosed spaces in accordance with recommendations¹;

.8 a basic knowledge of stowage procedures and arrangements for bringing stores on board; and

.9 a basic knowledge of deck maintenance and of tools used on deck."

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended

CHAPTER III

Guidance regarding the engine department

Section B-III/4

Guidance regarding the training and certification of ratings forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

2 Section B-III/4 is proposed to be amended, as follows:

"1 In addition to the requirements stated in section A-III/4 of this Code, Parties are encouraged, for safety reasons, to include the following items in the training of ratings forming part of an engineering watch:

- .1 a basic knowledge of routine pumping operations, such as bilge, ballast and cargo pumping systems;
- .1bis an awareness of the importance of interpersonal skills and basic knowledge of:
 - .1.1 effective communication;
 - .1.2 stress management;
 - .1.3 working in multicultural environment;
 - .1.4 management of change;
 - .1.5 mental health awareness; and
 - .1.6 mentoring;
- .1ter a basic knowledge of procedures related to entering and working in, and rescue from enclosed spaces in accordance with recommendations¹;
- .2 a basic knowledge of electrical installations and the associated dangers;
- .3 a basic knowledge of maintenance and repair of machinery and tools used in the engine-room; and
- .4 a basic knowledge of stowage and arrangements for bringing stores on board.

¹ Refer to the *Revised recommendations for entering enclosed spaces aboard ships*, adopted by resolution MSC.581(110), as amended