U.S. Department of Homeland Security

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COMDTCHANGENOTE 16721 NVIC 8-14 18 Sep 2019

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 8-14, CH-1

Subj: CH-1 TO GUIDELINES FOR QUALIFICATION FOR STCW ENDORSEMENTS IN BASIC TRAINING (FORMERLY BASIC SAFETY TRAINING), NVIC 8-14, COMDTPUB 16721

- Ref: (a) Guidelines for Qualification for STCW Endorsements in Basic Training (Formerly Basic Safety Training), NVIC 8-14, COMDTPUB 16721
- 1. <u>PURPOSE</u>. This Commandant Change Notice publishes CH-1 to NVIC 8-14.
- 2. <u>ACTION</u>. The Coast Guard will use reference (a), 46 CFR 11.302, and 46 CFR 12.602 to establish whether mariners are qualified in Basic Training (BT). Officers in Charge, Marine Inspection (OCMIs) should also bring this notice to the attention of the maritime industry within their zones of responsibility.
- 3. <u>DIRECTIVES AFFECTED</u>. With the release of this Commandant Change Notice, NVIC 8-14 is updated.
- 4. <u>DISCUSSION</u>.
 - a. NVIC 8-14 included grandfathering provisions for mariners to demonstrate continuing competency in BT that expired on January 1, 2017. This change notice removes the expired grandfathering provisions.
 - b. The Coast Guard has become aware of confusion over whether mariners who serve on vessels that are in operation and do not get underway, including, but not limited to, vessels in reduced operating status (ROS), may use their service to demonstrate having maintained the standard of competence for some of the components of BT. This change notice adds language to clarify that this service may be used for this purpose if the vessels hold regular fire and emergency drills.
- c. Enclosure (1) of NVIC 8-14 incorrectly stated that mariners who cannot meet the requirement for 1 year of sea service within the last 5 years will be required complete an approved or accepted BT *revalidation* course. As specified in 46 CFR 11.302(e) and 12.602(e), these mariners must complete approved or accepted *refresher* training. This change notice corrects that error.

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- 5. <u>DISCLAIMER</u>. This guidance is not a substitute for applicable legal requirements, nor is it itself a regulation. It is not intended to, nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and is issued for guidance purposes to outline methods of best practice for compliance with applicable law. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations.
- 6. <u>MAJOR CHANGES</u>. This Commandant Change Notice revises the guidance found in Enclosure (1) of NVIC 8-14 to:
 - a. Remove grandfathering provisions that expired on January 1, 2017;
 - b. Clarify whether mariners serving on vessels that do not get underway may use their service to establish having maintained the standard of competence for in BT; and
 - c. Correct an error concerning the type of required training for mariners who cannot meet the requirement for one year of service within the previous five years. These mariners need to complete an approved or accepted Basic Training <u>Refresher</u> course.

7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

- a. The development of this NVIC and the general policies contained within it have been thoroughly reviewed under Department of Homeland Security Directive 023-01 and Environmental Planning COMDTINST 5090.1 (series) by the originating office, and are categorically excluded (CE) from further environmental analysis under paragraph A3 in Table 3-1 of U.S. Coast Guard Environmental Planning Implementing Procedures 5090.1. Because this NVIC implements, without substantive change, the applicable Commandant Instruction or other federal agency regulations, procedures, manuals, and other guidance documents, Coast Guard categorical exclusion #A3 is appropriate.
- b. This NVIC will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this NVIC must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.
- 8. <u>DISTRIBUTION</u>. No paper distribution will be made of this Commandant Change Notice. An electronic version will be located at <u>http://www.uscg.mil/hq/cg5/nvic</u>.
- 9. <u>PROCEDURE</u>. Remove and insert the following pages of Enclosure (1) to NVIC 8-14:

Remove

Insert

Enclosure (1)

Enclosure (1) CH-1

10. <u>RECORDS MANAGEMENT CONSIDERATIONS</u>. This Commandant Change Notice has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with the Federal Records Act (44 U.S.C.

3101 et seq.), NARA requirements, and the Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.

- 11. FORMS/REPORTS. None.
- 12. <u>REQUEST FOR CHANGES</u>. All requests for changes or questions regarding implementation of Reference (a) and this Commandant Change Notice should be directed to the Mariner Credentialing Program Policy Division (CG-MMC-2), at (202) 372-2357 or <u>MMCPolicy@uscg.mil</u>.

R. V. TIMME Rear Admiral, U. S. Coast Guard Assistant Commandant for Prevention Policy

U.S. Department of Homeland Security United States Coast Guard



Commandant United States Coast Guard 2703 Martin Luther King Jr. Ave. SE Washington, DC 20593-7501 Staff Symbol: CG-CVC-4 Phone: (202) 372-2357 E-Mail: MMCPolicy@uscg.mil

COMDTPUB 16721 NVIC 08-14 17 JAN 2014

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 08-14

Subj: GUIDELINES FOR QUALIFICATION FOR STCW ENDORSEMENTS IN BASIC TRAINING (FORMERLY BASIC SAFETY TRAINING)

- Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW), Regulation VI/1 and Section A-VI/1 thru 4 of STCW Code, incorporated into regulations at 46 Code of Federal Regulations (CFR) 12.103
- 1. <u>PURPOSE</u>. This Navigation and Vessel Inspection Circular (NVIC) provides guidance for qualification and revalidation in Basic Training (BT).
- <u>ACTION</u>. The Coast Guard will use this NVIC to establish that candidates are qualified in BT as specified in 46 CFR 11.301(b) and 46 CFR 12.601(c). Officers in Charge, Marine Inspection (OCMIs) should bring this NVIC to the attention of the maritime industry within their zones. This NVIC is available on the World Wide Web at <u>http://www.uscg.mil/hq/cg5/nvic/</u>. The Coast Guard will distribute it by electronic means only.
- 3. <u>DIRECTIVES AFFECTED</u>. This NVIC cancels NVIC 05-00, Guidance on Performance Measures Used to Assess Seafarers' Proficiency in Programs in Basic Safety Training Meeting the Requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended, and National Maritime Center (NMC) Policy Letter 12-01, Continuing Competency in Basic Safety Training (BST).
- 4. BACKGROUND.

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- a. The STCW Convention and STCW Code set forth standards for training and certification for merchant mariners, including BT for mariners serving with assigned duties for safety and/or pollution prevention.
- b. In order to implement the 1995 amendments to STCW, the Coast Guard published NVIC 05-01 and NMC Policy Letter 12-01 providing guidance on requirements for BT.
- c. The International Maritime Organization (IMO) amended the STCW Convention and STCW Code on June 25, 2010. These amendments entered into force for all ratifying countries on January 1, 2012.
- d. The Convention is not self-implementing; therefore, the U.S., as a signatory to the STCW Convention, must initiate regulatory changes to ensure full implementation of the amendments to the STCW Convention and STCW Code. The U.S. implements these provisions under the Convention and under the authority of United States Code, Titles 33 and 46.
- e. The Coast Guard published a final rule on December 24, 2013 (78 FR 77796) that implements the STCW, including the 2010 amendments. The Coast Guard is publishing this NVIC to provide guidance on complying with the new regulations and is cancelling previous policy. Accordingly, this NVIC cancels NVIC 05-01 and NMC Policy Letter 12-01.

5. DISCUSSION.

- a. The following policy regarding BT is in this NVIC. Enclosure (1) discusses competency requirements for BT; Enclosure (2) contains the national assessment guidelines for BT; and Enclosure (3) contains relevant excerpts from the STCW Convention and STCW Code.
- b. As specified in 46 CFR 15.1105, all mariners serving in positions that must be filled as part of the required crew complement or who are assigned a responsibility on the muster list, must produce evidence of having achieved, and maintained at 5-year intervals, proficiency in BT. Training courses and programs designed to meet 46 CFR 15.1105 submitted to the Coast Guard for approval, must provide assessment guidelines or performance measures to assess mariners' proficiency. Lastly, the Coast Guard has developed national assessment guidelines for standardizing assessments of mariners in the four elements of BT:
 - 1) Personal Survival Techniques;
 - 2) Fire Prevention and Fire Fighting;
 - 3) Elementary First Aid; and
 - 4) Personal Safety and Social Responsibilities.

- c. Training institutions submitting a course should state either that the guidelines in Enclosure (2) will be used or provide the alternative guidelines it proposes to use.
- d. 46 CFR 11.302(b) and 12.602(b) also include requirements for mariners to maintain the standard of competence for BT every five years. Mariners may demonstrate having maintained competence through a combination of seagoing service and Coast Guard approved training ashore. The components that must be demonstrated in approved training are discussed in Enclosure (1) and the specific assessments that must be demonstrated are identified in Enclosure (2). The remaining components may be demonstrated by completion of seagoing service. To show continued competence in BT, the mariner should submit sea service documentation and/or BT course completion certificate(s) to the Coast Guard when applying for the renewal of or a change of endorsements on their Merchant Mariner Credential (MMC). The Coast Guard recommends that the mariner retain a copy of these documents for his or her records.
- 6. <u>DISCLAIMER</u>. This guidance is not a substitute for applicable legal requirements, nor is it itself a regulation. It is not intended to nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and is issued for guidance purposes to outline methods of best practice for compliance to the applicable law. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations.

7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

- a. The development of this NVIC and the general policies contained within it have been thoroughly reviewed by the originating office, and are categorically excluded (CE) under current USCG CE # 33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this NVIC implements, without substantive change, the applicable Commandant Instruction or other federal agency regulations, procedures, manuals, and other guidance documents, Coast Guard categorical exclusion #33 is appropriate.
- b. This NVIC will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this NVIC must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.
- <u>RECORDS MANAGEMENT CONSIDERATIONS</u>. This NVIC has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 08-14

9. FORMS/REPORTS. None.

 <u>QUESTIONS</u>. All questions regarding implementation of this NVIC should be directed to the Mariner Credentialing Program Policy Division (CG-CVC-4) at <u>MMCPolicy@uscg.mil</u> or (202) 372-2357. To obtain approval for an alternative to the assessments in Enclosure (2) or for BT courses, contact the NMC at <u>IAskNMC@uscg.mil</u> or (888) 427-5662.

J. A. SERVIDIO

Rear Admiral, U. S. Coast Guard Assistant Commandant for Prevention Policy

- Encl: (1) Discussion of Competency Requirements for Basic Training (BT)
 - (2) Assessment Guidelines for Table A-VI/1-1 thru 4 of the STCW Code (BT)
 - (3) Excerpts from STCW Convention and STCW Code

DISCUSSION OF COMPETENCY REQUIREMENTS FOR BASIC TRAINING

- 1. <u>GENERAL</u>.
 - a. 46 Code of Federal Regulations (CFR) 11.302, 46 CFR 12.602, and STCW Code A-VI/6, paragraph 2.2 indicate that a mariner must provide evidence of having achieved the required standard of competence to undertake the tasks, duties, and responsibilities listed in column 1 of STCW Code Tables A-VI/1-1, A-VI/1-2, A-VI/1-3 and A-VI/1-4 within the previous five years. 46 CFR 11.302 and 12.602 provide further information about the methods of demonstrating competence.
 - b. Mariners are required to demonstrate that they have maintained competency in each element of Basic Training (BT) at intervals not exceeding five years. (46 CFR 11.302 and 12.602).

2. DISCUSSION.

- a. Every 5 years seafarers must provide evidence of maintaining the standard of competence for BT (46 CFR 11.302(b) and 12.602(b). The Coast Guard will accept onboard training and experience for demonstrating continued competence for some of the components of BT (46 CFR 11.302(c) and 46 CFR 12.602(c)). Mariners who have met the requirements for initial competency in BT will be considered as having demonstrated continuing competence for some of the BT components provided that they have obtained at least 360 days of service relevant to BT within the past five years.
- b. Some of the components required to maintain the standard of competence for BT cannot be performed safely onboard a ship; therefore, assessments conducted ashore for the following components must be successfully demonstrated in Coast Guard approved training:
 - 1) Personal survival techniques as set out in Table A-VI/1-1 of the STCW Code:
 - i) Don and use an immersion suit;
 - ii) Safely jump from a height into the water;
 - iii) Right an inverted liferaft while wearing a lifejacket;
 - iv) Swim while wearing a lifejacket; and
 - v) Keep afloat without a lifejacket.
 - 2) Fire prevention and firefighting as set out in Table A-VI/1-2 of the STCW Code:
 - i) Use various types of portable fire extinguishers;
 - ii) Extinguish smaller fires, e.g., electrical fires, oil fires, and propane fires;
 - iii) Extinguish extensive fires with water, using jet and spray nozzles;
 - iv) Extinguish fires with foam, powder, or any other suitable chemical agent;
 - v) Fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus;
 - vi) Extinguish fire with water fog or any other suitable firefighting agent in an accommodation room or simulated engineroom with fire and heavy smoke; and

- vii) Extinguish oil fire with fog applicator and spray nozzles, dry chemical powder.
- c. For demonstrating continued competence in BT, the Coast Guard will accept service in any capacity aboard a vessel that is required to hold regular fire and emergency and abandon ship drills as being relevant to the qualification of BT. Service on vessels in reduced operating status (ROS) will be accepted as these vessels are required to hold drills under 46 CFR Subchapter W. Mariners may demonstrate that service on other vessels is relevant by providing evidence that their service included duties relevant to BT and/or that their service included ongoing participation in training and drills relevant to BT.
- d. For purposes of continued competence for BT, this service will be credited at day for day (one day of service equals one day of service credit).
- e. The Coast Guard may accept discharges, or sea service letters prepared in accordance with current standards, as proof of seagoing service. For the purposes of determining competency in BT.
- f. Mariners who can provide evidence of 360 days of service within the past five years may complete *revalidation* training to maintain competency for BT. Mariners who cannot provide evidence of this service must complete U. S. Coast Guard approved or accepted *refresher* training (46 CFR 11.302(e) and 12.602(e)). *Refresher* training must include assessment of all BT components.

Assessment Guidelines for Basic Training

Standard of Competence

As specified in 46 CFR 11.302 and 46 CFR 12.602, every candidate for STCW qualification and revalidation in Basic Training (BT) shall provide evidence of having achieved the required standard of competence specified in Tables A-VI/1-1 through A-VI/1-4 of the STCW Code. The tables that follow are adopted from Tables A-VI/1-1 through A-VI/1-4 of the STCW Code (found in Enclosure (3)) to assist the candidate and assessor in the demonstration of competency.

Written Assessments

Assessments by written examination may be used as indicated when the competence calls for demonstration of a candidate's knowledge or understanding. For Basic Training, these must be demonstrated by successful completion of a Coast Guard approved course or training program.

Practical Skill demonstrations

These assessment guidelines establish the conditions under which the assessment will occur, the performance or behavior the candidate is to accomplish, and the standards against which the performance is measured. The assessor is encouraged to use a checklist in conducting assessments of practical demonstrations of skill. Checklists allow a training institution to ensure that critical tasks are not overlooked when evaluating a candidate's practical demonstration. Training institutions should develop their own checklists for use in conducting the assessments in a complete and structured manner.

Note

The following note is used in the "Task No." column of the assessment tables that follow:

Note 1 Indicates a BT revalidation component to be demonstrated in Coast Guard approved training. See Enclosure (1), paragraph 2 (b)

Assessment Guidelines for Personal Survival Techniques

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.1.A	Survive at sea in the event of a ship abandonment.	Knowledge of types of emergency situations which may occur	When asked on a written examination to identify and describe the types of emergency situations which may occur,	the candidate identifies and describes (or select the answer that identifies and describes) the types of emergency situations that may occur and the hazards or consequences associated with each.	 The candidate identifies and describes (or selects the answer that identifies and describes) the hazards or consequences associated with situations such as: 1. Collision; 2. Fire; 3. Foundering, grounding, or loss of stability; 4. Hull failure; 5. Catastrophic machinery failure; and 6. Weather-related emergencies.
1.2.A	Survive at sea in the event of a ship abandonment.	Knowledge of types of lifesaving appliances carried on ships	When asked on a written examination to identify and describe the types of lifesaving appliances carried on ships,	the candidate identifies and describes (or selects the answer that identifies and describes) the types of lifesaving appliances carried on ships.	 The candidate identifies and describes (or selects the answer that identifies and describes) life saving appliances such as: 1. Lifejackets; 2. Ring buoys; 3. Water lights; 4. Lifeboats, life rafts, or rescue boats; 5. Immersion suits; 6. Thermal protective aids; 7. SARTs; 8. EPIRBs; and 9. Other emergency signaling devices.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.3.A	Survive at sea in the event of a ship abandonment.	Knowledge of equipment carried in survival craft and its use	When asked on a written examination to name and describe survival craft equipment and its use,	the candidate identifies and describes (or selects the answer that identifies and describes) the types and use of equipment carried in survival craft.	The candidate identifies and describes (or selects the answer that identifies and describes) the location and use of items of equipment such as: 1. Sea painter; 2. Storm oil; 3. Sea anchor; 4. Boat hook; 5. Hatchet; 6. Bailer; 7. Bilge pump; 8. Bucket; 9. Protective cover; 10. Fishing kit; 11. First aid kit; 12. Provisions; 13. Condensed milk; 14. Water desalting kit; 15. Jackknife; 16. Drinking cup; 17. Flashlight; 18. Lantern; 19. Illuminating oil; 20. Matches; 21. Life preservers; 22. Lifesaving signals table; 23. Orange smoke signals; 24. Parachute flares; 25. Red hand-held distress signals; 26. Signaling mirror; 27. Compass; 28. Gunwale ladder; 29. Ditty bag; 30. Fire extinguisher; 31. Tool kit, and 32. Other equipment that may be required.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.3.B	Survive at sea in the event of a ship abandonment.	Knowledge of equipment carried in survival craft and its use	Given an actual survival craft or a mock up stocked with an actual equipment inventory of each piece of equipment carried in the survival craft, when asked to demonstrate its use,	the candidate demonstrates the use of the piece of equipment given.	 The candidate correctly demonstrates the safe and proper sequence for inspection, operation, activation, and deployment for any of the following equipment in the time specified: 1. Sea painter (3 minutes); 2. Sea anchor (3 minutes); 3. Bilge pump (3 minutes); 4. Boat hook (3 minutes); 5. Water de-salting kit (3 minutes); 6. Signaling mirror (3 minutes); 7. Simulate activating smoke signals (3 minutes); 8. Distress signals (3 minutes); and
1.3.C	Survive at sea in the event of a ship abandonment.	Knowledge of equipment carried in survival craft and its use	When asked on a written examination to identify and describe the use of the equipment carried in survival craft,	the candidate identifies and describe (or select the answer that identifies and describes) the types and use of equipment carried in survival craft.	9. Parachute flares (3 minutes).The candidate identifies and describes (or selects the answer that identifies and describes) the use of items such as:1. Heaving line, 2. Instruction manual, 3. Instruction card, 4. Jackknife,14. Signal mirror and whistle,3. Instruction card, 4. Jackknife, 5. Floating knife, 6. Paddles, 7. Inflation pump, 8. Sea anchor, 9. Bailer, 10. Caps, 11. Sponges, 11. Sponges, 12. First aid kit, 13. Flashlight,14. Signal mirror and whistle, 15. Red parachute flares, 16. Hand-held flares, and smoke distress signals, 8. Provisions, 19. Water, 10. Caps, 11. Sponges, 12. First aid kit, 13. Flashlight, 23. Seasick tablets, and 24. Repair kit

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.4.A	Survive at sea in the event of a ship abandonment.	Knowledge of location of personal lifesaving appliances	When asked on a written examination to list the location of personal lifesaving appliances,	the candidate lists (or selects the answer that lists) the location of personal lifesaving appliances aboard ship.	The candidate lists (or selects the answer that lists) the locations of personal lifesaving appliances such as, "On the": bow; bridge; engine room; individual rooms; embarkation deck lockers; and survival craft.
1.5.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .1 value of training and drills	When asked on a written examination to state the value of training and drills,	the candidate states (or selects the answer that states) the value of training and drills.	The candidate states (or selects the answer that states) the following: "To increase proficiency" and "to increase ability to survive.
1.6.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .2 proper use of personal protective clothing and equipment	When asked on a written examination to describe the importance of a proper head cover, layers of clothing, and woolen or insulating clothing,	the candidate describes (or select the answer that describes) the importance of a proper head cover, layers of clothing, and woolen or insulating clothing.	 The candidate describes (or selects the answer that describes) the importance of items such as: 1. A proper head cover; 2. Layers of clothing; 3. Woolen or insulating clothing; 4. Immersion suits; 5. Lifejackets, and 6. Thermal-protective aids.
1.7.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .3 need to be ready for any emergency	When asked on a written examination to state the need to be ready for any emergency,	the candidate states (or select the answer that states) that being ready allows a quick response and will enhance the chances of successfully coping with emergency situations such as: collision; grounding; loss of stability; fire; hull failure, flooding or sinking; machinery failure; and weather related emergencies.	 The candidate states (or selects the answer that states) that being ready allows a quick response and will enhance the chances of successfully coping with emergency situations such as: 1. Collision; 2. Grounding; 3. Loss of stability; 4. Fire; 5. Hull failure; 6. Flooding or sinking; 7. Machinery failure; and 8. Weather-related emergencies.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.8.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .4 actions to be taken when called to survival craft stations (Response to Abandon Ship signal) Knowledge of	When asked on a written examination to list the actions to be taken when called to survival craft stations (Response to Abandon Ship signal),	the candidate lists (or selects the answer that lists) the actions to be taken when called to survival craft stations (Response to Abandon Ship signal).	 The candidate lists (or selects the answer that lists) all of the following: 1. Secure workspace; 2. Muster at designated stations; 3. Don a PFD or immersion suit and other equipment as may be required; and 4. Carry out duties as assigned on station bill. The candidate lists (or selects the answer that lists) the
	the event of a ship abandonment.	principles concerning survival, including: .5 actions to be taken when required to abandon ship	examination to list actions to be taken when required to abandon ship via lifeboat and life raft,	selects the answer that lists) the actions to be taken when required to abandon ship via lifeboat and life raft.	 following actions to be taken when required to abandon ship via lifeboat and life raft: 1. For lifeboats: a. safely loads/boards survival craft; b. safely lowers survival craft to water; and c. activate EPIRB. 2. For life rafts: a. safely deploys life rafts manually; b. uses disembarkation ladder to board survival craft, and c. activate EPIRB.
1.10.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .6 actions to be taken when survival craft is in the water	When asked on a written examination to list actions to be taken when the survival craft is in the water,	the candidate lists (or select the answer that lists) the actions to be taken when the survival craft is in the water.	 The candidate lists (or selects the answer that lists) all of the following actions to be taken when survival craft is in the water: 1. Safely release the survival craft; 2. Safely recover personnel from vessel and water; and 3. Safely maneuver survival craft away from vessel.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.11.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .6A actions to be taken by an individual in the water	When asked on a written examination to list actions to be taken by an individual in the water,	the candidate lists (or selects the answer that lists) the actions to be taken by an individual in the water.	 The candidate lists (or selects the answer that lists) actions to be taken by an individual in the water, such as: 1. Swim away from ship, 2. Stay clear of dangers in the water; 3. Locate survival craft or others in the water nearby; 4. Attract attention; and 5. Conserve energy and the effects of loss of body heat.
1.12.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .7 actions to be taken when aboard a survival craft	When asked on a written examination to list, in order of priority, the initial actions to take in a survival craft when its away from the vessel to enhance the chance of survival,	the candidate lists (or selects the answer that lists), in order of priority, the initial actions to take aboard a survival craft to enhance the chance of survival.	 The candidate lists (or selects the answer that lists) high priority actions, such as: 1. Posting a lookout; 2. Keeping raft dry; 3. Inflating floor; 4. Rigging radar reflector; 5. Readying distress signals; 6. Checking that sea-anchor is deployed; and 7. Activating the EPIRB.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.12.B	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .7 actions to be taken when aboard a survival craft	When asked on a written examination to list actions to be take aboard a survival craft at sea to enhance chances of survival,	the candidate lists (or select the answer that lists) the actions to be taken aboard a survival craft at sea to enhance chances of survival.	 The candidate lists (or selects the answer that lists) actions to be taken aboard a survival craft at sea to enhance chances of survival, such as: Establish chain of command; Assign tasks, such as: lookout; signaling/pyrotechnics; rationing and supplies; craft maintenance; and medical person. Rig protective cover or close up raft; Check rations; Check survival equipment; Rig rain collection system; Check water lights; Utilize thermal protective aids; Keep craft in vicinity of vessel and EPIRB signal through use of sea-anchor; Check VHF radio; Activate EPIRB; Muster or marshal other survival craft; and
1.13.A	Survive at sea in the event of a ship abandonment.	Knowledge of principles concerning survival, including: .8 main dangers to survivors	When asked on a written examination to list the main dangers to survivors of a vessel casualty,	the candidate lists (or selects the answer that lists) the main dangers to survivors.	 The candidate lists (or selects the answer that lists) dangers such as: 1. Drowning; 2. Hypothermia; 3. Conflict resolution; 4. Dehydration; 5. Starvation; 6. Exposure, and 7. Marine life.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.14.A	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	When asked to don a lifejacket,	the candidate properly dons the lifesaving device.	The candidate dons a lifesaving device in 1 minute, properly fitted, positioned, and secured.
1.14.B Note 1	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	When asked to properly put on an immersion suit,	the candidate properly dons an immersion suit.	The candidate dons an immersion suit in 2 minutes, properly fitted, positioned, and secured.
1.14.C	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	While wearing a life jacket and standing at least 1 meter above the water,	the candidate jumps into the water in the proper position to prevent injury.	 The candidate jumps safely into water doing all of the following: 1. One hand covering mouth and nose; 2. Other hand across chest to secure jacket from Riding up and coming off; and 3. Legs straight and tight together or ankles crossed.
1.14.D Note 1	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	While wearing an immersion suit and standing at least 1 meter above the water,	the candidate jumps into the water in the proper position to prevent injury.	The candidate jumps safely into water doing all of the following:1. One hand covering mouth and nose;2. Other hand across chest; and3. Legs straight and tight together or ankles crossed.
1.14.E Note 1	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	While in the water, wearing either a lifejacket or an immersion suit,	the candidate rights an inverted inflatable life raft rated for 6 persons or more.	 Within 10 minutes the candidate successfully completes all of the following: 1. Swim to side with CO₂ bottle; 2. Climb aboard; 3. Grab righting straps on side opposite CO₂ bottle; 4. Stand on or straddle bottle; 5. Lean back holding onto righting straps and right raft; and 6. Swim clear of raft.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.14.F Note 1	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	While in the water wearing a life jacket,	the candidate swims.	The candidate swims at least 20 feet.
1.14.G Note 1	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	In water, without either a life jacket or an immersion suit,	the candidate keeps afloat.	The candidate remains afloat for at least 1 minute.
1.14.H	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	Wearing either a life jacket or an immersion suit, and given a covered life raft in the water,	the candidate safely boards the life raft from the vessel.	The candidate safely boards the liferaft using the proper technique.
1.14.I	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	In the water, wearing either a life jacket or an immersion suit and given a covered life raft having a boarding height of not less than ¹ / ₂ meter nor more than 1 meter,	the candidate safely boards the life raft unassisted from the water.	 The candidate correctly demonstrates all of the following: 1. Swim to boarding ramp; 2. Grab boarding straps; 3. Kick legs while pulling self into raft; and 4. Board raft.
1.14.J	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	In a lifeboat, life raft or a training device that replicates a lifeboat or life raft, and given a packed sea anchor or a training device that replicates a sea anchor,	the candidate demonstrates the, deployment of the sea anchor and check for fouled deployment of the main lifeboat sea anchor, or the main and spare life raft sea anchor.	The candidate locates the instructions and properly deploys the sea anchor.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
1.14.K	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	Given an orange smoke canister, a red parachute flare, and a red hand held flare,	the candidate simulates the proper method to safely activate each device.	The candidate correctly simulates the proper method to activate each device, while holding the device at a safe distance downwind from persons and survival craft.
1.14.L	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	Given a hand held portable VHF radio, and given an emergency scenario or the order to communicate by radio with approaching rescuers,	the candidate simulates operating the controls of a portable VHF radio to properly communicate with approaching rescuers.	 The candidate correctly demonstrates all of the following operations, features and controls: 1. Turning radio on; 2. Adjusting volume; 3. Adjusting squelch; 4. Operating switch to transmit; and 5. Simulating the broadcast of the appropriate message on the proper channel for the scenario given or communicating with approaching rescuers.
1.14.M	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	Given an EPIRB set in the "test" mode,	the candidate brings the EPIRB to the survival craft and simulate activation.	The candidate correctly simulates activating the EPIRB in less than 1 minute.
1.14.N	Survive at sea in the event of a ship abandonment.	Proficiency in the use of lifesaving appliances normally carried on ships	Given a SART set in the "test" mode,	the candidate simulates activating the SART.	The candidate correctly demonstrates how to rig, activate, and hold or mount the SART equipment at the highest point possible in craft.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
2.1.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Shipboard fire fighting organization	When asked on a written examination to list the various positions and duties of the ship fire fighting organization,	the candidate lists (or selects the answer that lists) the various positions and duties of the ship fire fighting organization.	 The candidate lists (or selects the answer that lists) the following positions and duties: Master / Officer in Charge: the person in overall charge of the fire fighting; On Scene Leader / Officer in Charge at scene: the person in charge at the actual fire scene; Hose Team Leader (if appropriate): the person in charge of the hose team; Nozzleman: directs the stream and chooses the stream pattern; Back-up man: takes up the nozzle reaction pressure and helps move the hose; Crewmember: duties as assigned.
2.2.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Location of fire fighting appliances and emergency escape routes	When given a set of a ship's fire plans and asked on a written examination to identify the locations of fire fighting appliances and trace certain escape routes,	the candidate identifies (or selects the answer that identifies) the locations of fire fighting appliances and trace (or select the answer that traces) the escape routes from spaces identified on the plan.	 The candidate: Identifies (or selects the answer that identifies) the locations of fire fighting appliances on the plan; and Traces (or selects the answer that traces) the escape routes and identifies the most direct escape routes from the locations given, which will minimally include: a. the bridge; b. crew mess area; c. engine room; d. passenger or crew stateroom; e. workspace forward; f. workspace aft; and g. cargo area.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
2.3.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	The elements of fire and explosion	When asked on a written examination to list and state the significance of the four sides of the fire tetrahedron and the three sides of the fire triangle,	the candidate lists and states (or selects the answer that lists and states) the significance of the four sides of the fire tetrahedron and the three sides of the fire triangle.	 The candidate lists and states (or selects the answer that lists and states): 1. Heat, oxygen, fuel and chemical chain reaction as the sides of the fire tetrahedron, or 2. Heat, oxygen, and fuel as the sides of the fire triangle The candidate also answers that all of these components are necessary for a fire to occur and that the removal of any one component will cause the fire to be extinguished.
2.4.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Types and sources of ignition	When asked on a written examination to list the major sources of ignition aboard ship, and describe precautions to be taken for each,	the candidate lists (or selects the answer that lists) the major sources of ignition aboard ship, and describe (or select the answer that describes) precautions to be taken for each.	 The candidate lists (or select the answer that lists) major sources, such as: 1. Smoking materials; 2. Spontaneous ignition; 3. Electrical equipment,; 4. Galley operations; 5. Welding and burning; 6. Fuel oil transfer and service operations; and 7. Tanker loading and discharging, and collisions. The candidate also describes (or select the answer that describes) the precautions to be taken for each.
2.5.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Flammable materials, fire hazards, and spread of fire	When asked on a written examination to list examples of flammable materials for each of the three physical states,	the candidate lists (or selects the answer that lists) examples of flammable materials for each of the three physical states.	The candidate lists (or select the answer that lists) at least 2 examples of solid, liquid, or gas flammable materials.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
2.5.B	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Flammable materials, fire hazards, and spread of fire	When asked on a written examination to list examples of common fire hazards, and describe precautions to be taken for each,	the candidate lists (or selects the answer that lists) examples of common fire hazards, and describe(or select the answer that describes)precautions to be taken for each.	The candidate lists (or select the answer that lists) examples of poor housekeeping practices, complacency about fire safety on the job, careless disposal of smoking materials, defective electrical components, spillage of flammable materials, and careless work habits; and describes (or selects the answer that describes) precautions to be taken for each.
2.5.C	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Flammable materials, fire hazards, and spread of fire	When asked on a written examination to list and describe the methods of fire spread,	the candidate lists and describes (or select the answer that lists and describes) the methods of fire spread.	 The candidate lists and describes (or selects the answer that lists and describes) the following 3 methods of fire spread: 1. Conduction – heat through a solid; 2. Convection - heat transfer by fluid motion; and 3. Radiation – heat transfer by electro-magnetic or radiant energy propagation.
2.6.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	The need for constant vigilance	When asked on a written examination to state the need for constant vigilance,	the candidate states (or selects the answer that states) why constant vigilance is needed.	The candidate states (or selects the answer that states): "constant vigilance is needed to prevent the loss of life and damage to the ship and the environment from fire."
2.7.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Actions to be taken upon discovery of fire on board ship	When asked on a written examination to state the actions to be taken upon discovery of fire on board ship,	the candidate states (or selects the answer that states) the actions to be taken upon discovery of fire on board ship.	 The candidate states (or selects the answer that states) all the following actions: 1. Sound the alarm; 2. Accurately report the location, type and size of fire; 3. Personnel requiring rescue; and 4. Actions taken so far, such as confining the fire.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
2.8.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Fire and smoke detection, and automatic alarm systems	When asked on a written examination to describe the procedure for locating the space in which a smoke, heat or flame detector has been activated and acknowledging the alarm signal,	the candidate describes (or selects the answer that describes) the procedure for locating the space in which a smoke, heat or flame detector has been activated and acknowledging the alarm signal.	The candidate describes (or selects the answer that describes) the procedure for locating the space in which a smoke, heat or flame detector has been activated and acknowledging the alarm signal.
2.8.B	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Fire and smoke detection, and automatic alarm systems	When asked on a written examination to describe the procedure for locating the space in which an automatic sprinkler has been activated,	the candidate describes (or selects the answer that describes) the procedure for locating the space in which an automatic sprinkler has been activated.	The candidate describes (or selects the answer that describes) the procedure for locating the space in which an automatic sprinkler has been activated.
2.8.C	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Fire and smoke detection, and automatic alarm systems	When asked on a written examination to describe the signal and list the actions to be taken when the CO ₂ (or other potentially hazardous extinguishing agents) flooding alarm is sounded,	the candidate describes (or selects the answer that describes) the signal and list (or selects the answer that lists) the actions to be taken when the CO_2 (or other potentially hazardous extinguishing agents) flooding alarm is sounded.	The candidate describes (or selects the answer that describes) the signal and list (or selects the answer that lists) all actions to be taken when the CO ₂ (or other potentially hazardous extinguishing agents) flooding alarm is sounded.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
2.9.A	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Classification of fire and applicable extinguishing agents	When asked on a written examination to list and define the classes of fire,	the candidate lists and defines (or selects the answer that lists and defines) the classes of fire.	 The candidate lists and defines (or selects the answer that lists and defines) five classes of fire: 1. Class A - combustible solids; 2. Class B - combustible and flammable liquids and gases; 3. Class C - energized electrical equipment; and 4. Class D - combustible metals.
2.9.B	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire.	Classification of fire and applicable extinguishing agents	When asked on a written examination to list extinguishing agents and name the classes of fire for which they are effective,	the candidate lists (or selects the answer that lists) extinguishing agents and names (or selects the answer that names) the classes of fire for which they are effective.	 4. Class D - combustible inclass. The candidate lists (or selects the answer that lists) extinguishing agents and names (or selects the answer that names) the following extinguishing agents and name at least one of the classes of fire for which they are effective: 1. Water - normally used on Class A (ordinary combustibles) materials; 2. Steam – normally for Class A and Class B fires; 3. Foam - normally used on Class B fires; 4. Carbon dioxide (CO₂) – usually used on Class B and C fires; 5. Dry chemical – Class B and C and sometimes Class A; 6. Dry powder - Class D only; and 7. Halon™ or Halon™ alternative agents - Class B and C.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
3.1.A	Fight and extinguish fires.	Fire fighting equipment and its location on board: .1 fixed installations	When asked on a written examination to list the safety procedures to be utilized when a fixed fire fighting system is to be employed,	the candidate lists (or selects the answer that lists) the safety procedures to be utilized when a fixed fire fighting system is to be employed.	 The candidate lists (or selects the answer that lists) the following safety procedures to be utilized when a fixed fire fighting system is to be employed: 1. All crewmembers must be instructed in the evacuation procedures to be taken when the alarm is activated; 2. Complete crew muster must be taken; 3. Proper authorization must be granted to use the system; and 4. Only trained personnel should operate the system.
3.2.A	Fight and extinguish fires.	Fire fighting equipment and its location on board: .2 fire fighter's outfit	When given a complete fire fighter's outfit and asked to demonstrate the proper donning procedure,	the candidate demonstrates the proper donning procedure for the fire fighter's outfit.	 The candidate demonstrates proper donning of all the following equipment in 3 minutes: 1. Flash hood, 2. Turnout pants and boots; 3. Turnout coat; 4. Helmet; 5. Gloves, and 6. Eye protection
3.2.B	Fight and extinguish fires.	Fire fighting equipment and its location on board: .2 fire fighter's outfit	When asked on a written examination to list the dangers / limitations of a fire fighter's outfit,	the candidate lists (or selects the answer that lists) the dangers / limitations of a fire fighter's outfit.	 The candidate lists (or selects the answer that lists) the following: 1. Tendency to induce heat exhaustion; and 2. Decrease in mobility/dexterity/ endurance and limits to protective qualities.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
3.3.A	Fight and extinguish fires.	Fire fighting equipment and its location on board: .3 personal equipment	When asked on a written examination to list personal equipment carried during fire fighting operations and describe their use,	the candidate lists (or selects the answer that lists and describes) personal equipment carried during fire fighting operations and describe their use.	 The candidate lists and describes the use of (or selects the answer that lists and describes) the personal equipment such as the following, which may be carried during fire fighting operations: 1. Flashlight; 2. Life line; 3. PASS device; and 4. Personal atmospheric meters.
3.4.A	Fight and extinguish fires.	.Fire fighting equipment and its location on board: .4 fire fighting equipment and appliances	When asked on a written examination to list fire fighting equipment most typically used during fire fighting operations and describe their use,	the candidate lists and describes the use (or selects the answer that list and describes the use) of fire fighting equipment most typically used during fire fighting operations.	 The candidate lists and describes the use (or selects the answer that lists and describes the use) of fire fighting equipment most typically used during fire fighting operations, such as: 1. Ax; 2. Spanner wrench; and 3. Other hand tools.
3.4.B	Fight and extinguish fires.	Fire fighting equipment and its location on board: . 4 fire fighting equipment and appliances	When asked on a written examination to list commonly used fire fighting appliances and state their purpose,	the candidate lists and states the purpose (or selects the answer that lists and states the purpose) of commonly used fire fighting appliances.	 The candidate lists and states the purpose (or selects the answer that lists and states the purpose) of the following commonly used fire fighting appliances, such as: 1. Gated wye; 2. Reducer; 3. Adapter; 4. Nozzle (variable stream or high velocity fog & applicator); and 5. Monitor.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
3.5.A	Fight and extinguish fires.	Fire fighting equipment and its location on board: .5 fire fighting methods	When told the name of each of the 2 strategies of fire fighting and asked on a written examination to describe their objective,	the candidate describes (or selects the answer that describes) the objectives of the 2 strategies of fire fighting.	 The candidate describes (or selects the answer that describes) the 2 strategies of fire fighting by stating the descriptive phrases for each method: 1. Defensive – objective is confinement, accomplished by doing closures, and boundary cooling; and 2. Offensive - objective is extinguishment, accomplished by applying extinguishing agent(s) onto the fire.
3.6.A	Fight and extinguish fires.	Fire fighting equipment and its location on board: .6 fire fighting agents	When asked on a written examination to list the various fire fighting agents and state how they extinguish fires,	the candidate lists (or selects the answer that lists) the various fire fighting agents; and state (or select the answer that states) how they extinguish fire.	 The candidate lists (or selects the answer that lists) various fire fighting agents, and state (or select the answer that states) how they extinguish fires, such as: 1. Water – cooling; 2. Steam - cooling and smothering; 3. Foam – smothering; 4. Carbon dioxide – smothering; 5. Dry chemical – smothering and chemical chain breaking; 6. Dry powder – smothering; and 7. Halon™ or Halon™ alternative agents – chemical chain breaking.
3.7.A Note 1	Fight and extinguish fires.	Fire fighting equipment and its location on board: .7 fire fighting procedures	When presented with one or more small fires ,	the candidate utilizes the appropriate extinguisher (water, CO_2 , foam, dry chemical, or dry powder, etc.) and demonstrate correct firefighting procedures.	 The candidate correctly demonstrates fire fighting procedures for one or more small fire(s) by doing all of the following: 1. Selecting proper class fire extinguisher; 2. Employing safe tactics (standing up-wind), and making effective application of agent (for example, aimed at base of flames; and 3. For foam, building up blanket) to fully extinguish the fire before the agent is exhausted.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
3.8.A Note 1	Fight and extinguish fires.	Fire fighting equipment and its location on board: .8 use of breathing apparatus for fighting fires and effecting rescues	When dressed in a fire fighter's outfit (without gloves on), given a self- contained breathing apparatus and asked to demonstrate one of the proper donning methods for self-contained breathing apparatus,	the candidate demonstrates one of the proper donning methods for self- contained breathing apparatus.	 The candidate demonstrates the proper donning of a self-contained breathing apparatus using one of the following methods: 1. Off the wall; 2. Partner assist (must demonstrate both roles: assisting and being assisted); 3. Coat swing; or, 4. Over the head, The candidate must achieve a proper fit of the unit with no loose or incorrect strap connections, and perform a user seal check.
3.8.B Note 1	Fight and extinguish fires.	Fire fighting equipment and its location on board: .8 use of breathing apparatus for fighting fires and effecting rescues	While wearing a fire fighter's outfit (wearing gloves) and with a self- contained breathing apparatus donned, when asked to demonstrate proper use of the apparatus under normal and emergency conditions,	the candidate demonstrates proper use of the breathing apparatus under normal and emergency conditions.	The candidate correctly demonstrates all of the following:1. Normal breathing;2. Changing the bottle; and3. Emergency breathing.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
3.8.C Note 1	Fight and extinguish fires.	Fire fighting equipment and its location on board: .8 use of breathing apparatus for fighting fires and effecting rescues	When presented with an extensive fire, with heavy smoke in an enclosed space, given jet and spray nozzles on a charged hose line, wearing a fire fighter's outfit and a properly donned self-contained breathing apparatus, and asked to demonstrate the hose team leader procedures to extinguish the fire,	the candidate demonstrates the proper hose team leader procedures for extinguishing extensive fires.	 The candidate correctly demonstrates all of the following hose team leader procedures for extinguishing an extensive fire: 1. Selecting proper nozzle settings and advancing the hose line; 2. Employing safe tactics (crouching low and approaching from upwind or with a clear exit path); 3. Making effective application of water streams (using accepted motion(s) of nozzle); and 4. Extinguishing the fire.
3.8.D Note 1	Fight and extinguish fires.	Fire fighting equipment and its location on board: .8 use of breathing apparatus for fighting fires and effecting rescues	When presented with smoke-filled space, wearing a fire fighter's outfit and a properly donned self-contained breathing apparatus, and asked to effect a rescue	the candidate demonstrates the proper procedures for effecting a rescue.	The candidate correctly demonstrates procedures for affecting a rescue by doing all of the following:1. Conducting a search that is thorough and has a pattern; and2. Locating and removing an adult-sized rescue mannequin.

Assessment Guidelines for Elementary First Aid

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.1.A	Take immediate action upon encountering an accident or other medical emergency.	Assessment of needs of casualties and threats to own safety	When asked on a written examination to state the importance of body substance isolation,	the candidate states (or selects the answer that states) the importance of body substance isolation.	The candidate states (or selects the answer that states) that the importance of "body substance isolation" to reduce the health threat to emergency and medical personnel."
4.1.B	Take immediate action upon encountering an accident or other medical emergency.	Assessment of needs of casualties and threats to own safety	When asked on a written examination to list body substance barrier devices,	the candidate lists (or selects the answer that lists) body substance barrier devices.	 The candidate lists (or selects the answer that lists) barrier devices such as: 1. Gloves; 2. Masks; 3. Goggles; and 4. Resuscitation masks.
4.1.C	Take immediate action upon encountering an accident or other medical emergency.	Assessment of needs of casualties and threats to own safety	When asked on a written examination to identify 4 scene safety hazards,	the candidate identifies (or selects the answer that identifies) 4 scene safety hazards.	 The candidate identifies (or selects the answer that identifies) scene safety hazards such as: 1. Environmental hazards; 2. Electrical hazards; 3. Fire hazards; and 4. Hazardous materials.
4.1.D	Take immediate action upon encountering an accident or other medical emergency.	Assessment of needs of casualties and threats to own safety	When asked on a written examination what to do when a medical or trauma emergency is suspected,	the candidate states (or selects the answer that states) what is to be done when a medical or trauma emergency is suspected.	The candidate states (or selects the answer that states) that help should be called whenever a medical or trauma emergency is suspected.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.1.E	Take immediate action upon encountering an accident or other medical emergency.	Assessment of needs of casualties and threats to own safety	When asked on a written examination to describe patient assessment procedures in correct order,	the candidate describes (or selects the answer that describes) patient assessment procedures in correct order.	 The candidate describes (or selects the answer that describes) all of the following patient assessment procedures in accordance with currently accepted practices, in the following order: 1. Responsiveness (by verbal communication or touching); 2. Airway (by listening and feeling); 3. Breathing (by listening, feeling and observing); and 4. Bleeding (by observing).
4.2.A	Take immediate action upon encountering an accident or other medical emergency.	Appreciation of body structure and function	When asked on a written examination,	 the candidate describes body structure in terms of 1. skeleton; 2. joints, muscles and tendons; and 3. major organs, 	 The candidate identifies and states in simple words the functions of the parts forming the body structure: 1. Principal bones; 2. Regions of the body; 3. Main organs of the chest and the functions of each (brain, heart, lungs, etc.); 4. The nervous system; 5. The respiratory system; and 6. Circulatory system.
4.3.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .1 position the casualty	When asked on a written examination to list the reasons for not changing the position of a patient,	the candidate lists (or selects the answer that lists) the reasons for not changing the position of a patient.	 The candidate lists (or selects the answer that lists) the reason or reasons for not changing the position of a patient, such as the possibility of: 1. Causing further injury or aggravating other internal injuries; and 2. The existence of a spinal cord injury.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.3.B	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .1 position the casualty	When asked on a written examination to list the reasons for changing the position of a patient,	the candidate lists (or selects the answer that lists) the reasons for positioning a patient.	The candidate lists (or selects the answer that lists) the reason or reasons for positioning a patient, such as:1. Eliminate airway obstruction;2. Remove the patient from imminent hazard, or3. Minimize potential for aspiration.
4.4.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, when asked to demonstrate determining whether resuscitation is required, follow currently accepted guidelines (e.g., American Heart Association)	the candidate uses the resuscitation mannequin to demonstrate determining whether resuscitation is required.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.B	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, when asked to demonstrate the opening of the airway and checking for breathing,	the candidate demonstrates the opening of the airway and checking for breathing.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.C	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	When asked on a written examination to describe procedures for two-person CPR,	the candidate lists (or selects the answer that lists) the proper procedures for two- person CPR.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.4.D	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, and told to take the appropriate action for an unresponsive person who is not breathing,	the candidate demonstrates the proper action to take for an unresponsive person who is not breathing	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.E	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: 2 apply resuscitation techniques	Given a resuscitation mannequin, and asked to demonstrate the procedure for determining if a patient has a pulse,	the candidate demonstrates the procedure for determining if a patient has a pulse.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.F	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, and asked to demonstrate proper hand placements for chest compressions,	the candidate demonstrates proper hand placements for chest compressions.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.G	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, when asked to demonstrate proper CPR compressions for 2 minutes,	the candidate demonstrates proper CPR compressions for 2 minutes.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.4.H	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation techniques	Given a resuscitation mannequin, when asked to demonstrate proper actions for a conscious adult with a foreign body airway blockage,	the candidate demonstrates proper actions for a conscious adult with a foreign body airway blockage.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.4.I	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .2 apply resuscitation	Given a resuscitation mannequin, when asked to demonstrate the proper series of actions for an adult with a foreign body airway blockage and slipping into an unconscious state,	the candidate demonstrates the proper series of actions for an unconscious adult with a foreign body airway blockage until attempts are successful.	To be performed to currently accepted standards as published by the American Heart Association and/or the American Red Cross.
4.5.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .3 control bleeding	Given a rescue mannequin with a bleeding injury simulated or described and asked to demonstrate proper bleeding control techniques, taking into consideration the location and severity of the injury,	the candidate uses the rescue mannequin with a simulated or described bleeding injury to demonstrate proper bleeding control techniques, taking into consideration the location and severity of the injury.	Using the rescue mannequin, the candidate correctly demonstrates proper basic bleeding control techniques, taking into consideration the location and severity of the injury, following currently accepted guidelines.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.6.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .4 apply appropriate measures of basic shock management	When asked on a written examination to identify the signs and symptoms of shock development,	the candidate identifies (or selects the answer that identifies) the signs and symptoms of shock development.	 The candidate identifies (or selects the answer that identifies) signs and symptoms of shock development, such as: 1. Rapid and shallow respiration; 2. Thirst, nausea and vomiting; 3. Weak and rapid pulse; and 4. Restlessness, excitement and anxiety.
4.6.B	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .4 apply appropriate measures of basic shock management	When asked on a written examination to describe the position for a patient in shock that does not appear to have an injury to the spine or a lower extremity,	the candidate describes (or selects the answer that describes) the position for a patient in shock that does not appear to have an injury to the spine or a lower extremity.	The candidate describes (or selects the answer that describes) the position for a shock patient that does not appear to have an injury to the spine or a lower extremity including the following:1. Patient lying on the floor, and2. Legs elevated.
4.7.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .5 apply appropriate measures in event of burns and scalds, including accidents caused by electric current	When asked on a written examination to identify the kinds of burns that can occur,	the candidate identifies (or selects the answer identifies) the kinds of burns that can occur.	The candidate identifies (or selects the answer that identifies) the following kinds of burns: thermal, chemical and electrical.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.7.B	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .5 apply appropriate measures in event of burns and scalds, including accidents caused by electric current	When asked on a written examination to describe the nature, severity and differentiating characteristics of first, second, and third degree burns,	the candidate describes (or selects the answer that describes) the nature, severity and differentiating characteristics of first, second, and third degree burns.	 The candidate describes (or selects the answer that describes) one or more of: first, second and third degree burns: 1. First degree – affects only outer epidermal area, characterized by redness, pain, increased warmth, or tenderness; 2. Second degree – affects entire layer of epidermis, characterized by blistering, deep reddening, considerable swelling and severe pain; and 3. Third degree – affects epidermis and possibly muscle and bone, characterized by charring which may be black, brown, hard, cherry red and dry, milk white, or thick and leathery.
4.7.C	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .5 apply appropriate measures in event of burns and scalds, including accidents caused by electric current	When asked on a written examination to identify the means of reducing the possibility of infection for burn victims,	the candidate identifies (or selects the answer that identifies) the means of reducing the possibility of infection.	 The candidate identifies (or selects the answer that identifies) the following means of reducing the possibility of infection: 1. Scrubbing hands before treating burn; 2. Using sterile gloves; 3. Cleansing area with water and povidone-iodine solution; 4. Removing dirt and debris from around burn site; and 5. Not opening blisters or removing pieces of tissue.
4.8.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .6 rescue and transport a casualty	When asked on a written examination when the victim <i>should not</i> be moved <i>prior</i> to evaluation and treatment,	the candidate states (or selects the statement that states) the circumstances when the victim <i>should not</i> be moved <i>prior</i> to evaluation and treatment.	The candidate states (or selects the answer that states) that the victim should not be moved prior to evaluation and treatment unless in danger from an imminent hazard, such as: fire, flooding, explosion and toxic substances, or any other immediate threat to life.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.8.B	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .6 rescue and transport a casualty	When asked on a written examination to list the circumstances when a victim <i>should</i> be moved from the scene,	the candidate lists (or selects the answer that lists) the circumstances when a victim <i>should</i> be moved from the scene.	 The candidate lists (or selects the answer that lists) the circumstances when a victim should be moved from the scene by indicating both of the following: 1. After suspected fractures have been immobilized and severe bleeding has been stopped; and 2. Movement is necessary due to an unsafe scene or in order to further treat the victim.
4.8.C	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .6 rescue and transport a casualty	Given a rescue mannequin or a volunteer patient, and given a variety of splints and ties, when asked to demonstrate the immobilization of a fracture,	the candidate demonstrates the immobilization of a fracture named by the assessor using splints and ties on either the rescue mannequin or volunteer patient.	 The candidate, in 10 minutes or less, correctly demonstrates the immobilization of a simple limb fracture named by the assessor using splints and ties on either the rescue mannequin or volunteer patient, achieving all of the following: 1. Proper traction; 2. Stability; and 3. Padding.
4.8.D	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .6 rescue and transport a casualty	Given a rescue mannequin or a volunteer patient, when asked to demonstrate one or more generally accepted practices to prepare patient for spinal immobilization	the candidate, uses a rescue mannequin or volunteer patient to demonstrate one or more generally accepted practices to prepare patient for spinal immobilization.	Using the rescue mannequin or volunteer patient, the candidate, in 10 minutes or less, correctly demonstrates one or more generally accepted practices to prepare a patient for spinal immobilization

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
4.9.A	Take immediate action upon encountering an accident or other medical emergency.	Knowledge of immediate measures to take in cases of emergency, including the ability to: .7 improvise bandages and use materials in first aid kit	Given a roller bandage, a triangular bandage, a tubular rolled bandage and a cravat, when asked to demonstrate bandaging techniques for wound treatment for each injury site indicated,	the candidate selects the appropriate bandage(s) and/or cravat, and demonstrate the bandaging technique for wound treatment for each injury site indicated.	 The candidate selects the proper bandage(s) and/or cravat, and correctly demonstrate the bandaging technique for wound treatment that holds dressing securely in place, but does not interfere with circulation for 70% (3) of any 4 of the following injury sites (named by the assessor) in the time frame indicated: 1. Forearm (5 minutes; uses roller bandage); 2. Chest or back (10 minutes; uses triangular bandage); 3. Shoulder or hip (10 minutes; uses cravat and triangular bandages); or 4. Hand or foot (5 minutes; uses triangular bandage).

Assessment (Guidelines for	Personal	Safety and S	Social Responsibilities
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Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
5.1.A	Comply with emergency procedures.	Knowledge of types of emergencies which may occur	When asked to describe the types of emergencies which may occur,	the candidate describes in writing the types of emergencies that may occur.	 The candidate correctly describes (or selects the answer that describes) one or more of the following emergencies: 1. Collision; 2. Fire; 3. Foundering; 4. Grounding; and 5. Weather-related emergencies.
5.2.A	Comply with emergency procedures.	Knowledge of emergency signals and specific duties allocated to crew members in the muster list; muster stations; correct use of personal safety equipment	When asked to state the location of station bills and forecastle card, and describe the information they contain,	the candidate states in writing the location of station bills and forecastle card, and describe the information they contain.	 The candidate correctly describes (or selects the answer that describes) the general location(s) of station bills and forecastle card, and describe one or more the following items they contain: 1. Fire alarm signal; 2. Actions to be taken by crew and passengers upon hearing the general alarm; 3. Abandon ship signal; and, 4. Duties assigned to each member of the crew along with the location of their lifeboat station.
5.2.B	Comply with emergency procedures.	Knowledge of emergency signals and specific duties allocated to crew members in the muster list; muster stations; correct use of personal safety equipment	When asked to state the purpose, location, and circumstances requiring equipment such as lifejackets, exposure suits, hardhats, goggles, respirators, emergency escape breathing device, hearing protection, and safety shoes	the candidate states in writing the purpose, location, and circumstances requiring equipment such as lifejackets, exposure suits, hardhats, goggles, respirators, emergency escape breathing device, hearing protection, and safety shoes.	The candidate correctly describes (or selects the answer that describes) the purpose, location, and circumstances requiring equipment such as lifejackets, exposure suits, hardhats, goggles, respirators, emergency escape breathing device, hearing protection, and safety shoes.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
5.3.A	Comply with emergency procedures.	Knowledge of shipboard contingency plans for	When asked to list the steps to taken to report a fire,	the candidate lists in writing the steps to taken to report a fire.	The candidate correctly describes (or selects the answer that describes) all of the following steps to be taken to report a fire:
		response to emergencies			1. Pass the word to an area where an alarm can be sounded i.e. bridge or engine room or sound the general alarm if available;
					2. Give all pertinent details concerning the fire location, type and size; and
					3. Report actions taken so far.
5.3.B	Comply with emergency procedures.	Knowledge of shipboard contingency plans for response to emergencies	When asked to list the steps to take upon seeing or hearing a person fall overboard,	the candidate lists in writing the steps to take upon seeing or hearing a person fall overboard.	 The candidate correctly describes (or selects the answer that describes) all of the following actions to take upon seeing or hearing a person fall overboard: 1. Shout "Man Overboard;" 2. Throw a life ring and/or other buoyant materials; 3. Notify the bridge as quickly as possible; and,
					4. Attempt to keep person in sight.
5.4.A	Comply with emergency procedures.	Know actions to take on discovering potential emergencies, including fire, collision, foundering	When given a particular situation, and asked to identify the proper person to alert,	the candidate identifies in writing the proper person to alert for the situation given.	The candidate correctly describes (or selects the answer that describes) the proper person to alert for all of the following situations given:1. Fire;2. Collision;
		and ingress of water into the ship			3. Foundering; and,
		mo me smp			4. Ingress of water into the ship.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
5.5.A	Comply with emergency procedures.	Know actions to take on hearing emergency alarm signals	When asked to list the actions to be taken upon hearing fire, emergency or abandon ship alarms or signals,	the candidate lists in writing the actions to be taken upon hearing fire, emergency or abandon ship alarms or signals.	 The candidate correctly describes (or selects the answer that describes) the actions to be taken upon hearing: 1. A fire alarm; 2. Other emergency alarm(s) or signal(s); and 3. Abandon ship signal.
5.6.A	Comply with emergency procedures.	Know value of training and drills.	When asked to list the reasons for requiring crew participation in training and drills,	the candidate lists in writing the reasons for requiring crew participation in training and drills.	 The candidate correctly describes (or selects the answer that describes) at least 1 of the following reasons for requiring crew participation in training and drills: 1. Prepares crew for any possible emergency; 2. Repetition through drills allows for an immediate response to emergencies; 3. Proper emergency procedures can save your life; or 4. All crew members rely on each other to carry out their assigned duties during emergency situations.
5.6.B	Comply with emergency procedures.	Know value of training and drills.	When the candidate is asked to describe shipboard communication devices,	the candidate describes in writing the general location, purpose and function of each shipboard communication device	 The candidate correctly describes (or selects the answer that describes), the general location, purpose and function of one or more of the following shipboard communication devices: 1. Internal phone system; 2. Sound powered phone system; 3. Intercoms; 4. Voice tubes; and 5. Hand-held radios.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
5.6.C	Comply with emergency procedures.	Know value of training and drills.	When a shipboard alarm system in named and then, asked to describe its general location, purpose and function of each one	the candidate describes in writing the general location, purpose and function of each of the shipboard alarm systems named.	 The candidate correctly describes (or selects the answer that describes) the general location, purpose and function of each of the following shipboard alarm systems: 1. General alarms; 2. Ship's whistle; 3. Ship's bell; 4. CO₂ alarm; and 5. Engineer's call alarm.
6.1.A	Take precautions to prevent pollution of the marine environment.	Basic knowledge of the impact of shipping on the marine environment and the effects of operational or accidental pollution on it Basic environmental protection procedures	When asked to describe the short and long term effects of pollution on water, the shoreline and marine life,	the candidate in writing describes the short and long-term effects of pollution on water, the shoreline and marine life.	The candidate correctly describes in writing (or selects the answer that describes) the short and long-term effects of pollution on various parts of the environment, such as: air; water; shoreline; and marine life.
		Basic knowledge of complexity and diversity of the marine environment			
6.2.A	Take precautions to prevent pollution of the marine environment.	Know the basic environmental protection procedures.	When asked to describe the importance of MARPOL and its regulations,	the candidate describes in writing the importance of MARPOL.	The candidate correctly describes (or selects the answer that describes) the purpose and importance of MARPOL, including: waste and garbage management; and, the obligation to report oil spills.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
6.2.B	Take precautions to prevent pollution of the marine environment.	Know the basic environmental protection procedures.	When asked to explain why operational procedures must be followed to safeguard the marine environment,	the candidate explains in writing why operational procedures must be followed to safeguard the marine environment based on appropriate tenets of MARPOL.	 The candidate explains in writing (or selects an answer that describes) why operational procedures must be followed to safeguard the marine environment by stating (or selecting) one or more of the following concepts: 1. Because the law requires it; 2. Operational procedures reflect how the ship systems need to operate to comply with the law; or 3. Operational procedures are designed to take the "guess work" out of safeguarding the marine environment.
7.1.A	Observe safe working practices.	Know the importance of adhering to safe working practices at all times.	When asked to describe areas or conditions aboard ship where injuries are common (frequent or more likely) and special attention to prevention is needed,	the candidate describes in writing areas or conditions aboard ship where injuries are common (frequent or more likely) and special attention to prevention is needed.	 The candidate describes (or selects an answer that describes) common shipboard hazards and how to control them, such as: 1. Slippery surfaces; 2. Stairwells and ladders; 3. Dimly lit areas; 4. Areas of moving machinery; 5. Mooring lines, and coiled lines or hoses; 6. Electrical hazards; 7. Hot surfaces; 8. Chemicals; and 9. Areas of entrapment such as tanks and other confined spaces.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
7.1.B	Observe safe working practices.	Know the importance of adhering to safe working practices at all times.	When asked to describe common safety practices for shipboard work,	the candidate describes in writing common safety practices for shipboard work.	 The candidate correctly describes (or selects an answer that describes) common safety practices for shipboard work, such as: 1. Pre-job safety planning (e.g., Job Safety Analysis); 2. "One hand for me and one for the ship"; 3. Proper lifting techniques; 4. Use of Personal Protective Equipment; and 5. Get help when needed.
7.2.A	Observe safe working practices.	Know precautions to be taken prior to entering enclosed/confined spaces.	When asked to define an "enclosed/confined space" and describe the dangers associated with enclosed/confined spaces,	the candidate defines in writing an "enclosed/confined space" and describe the dangers associated with enclosed/confined spaces.	 The candidate correctly defines (or selects an answer that describes) an "enclosed/confined space" and dangers associated with enclosed spaces, such as: 1. Lack of oxygen; 2. Dangerous gases, fumes and vapors; 3. Lack of lighting; 4. Limited access; 5. Poor lighting; and 6. Poor footing.
7.2.B	Observe safe working practices.	Know precautions to be taken prior to entering enclosed/confined spaces.	When asked to list procedures to take prior to entry into an enclosed/confined space,	the candidate lists in writing procedures to take prior to entry into an enclosed/confined space.	 The candidate correctly lists (or selects an answer that describes) procedures to take prior to entry into an enclosed/confined space, such as: 1. Ensure entry permit is completed and approved; 2. Open and ventilate space; 3. Test atmosphere; 4. Obtain entry approval; 5. Have available and use proper entry/rescue equipment; and 6. Continue to monitor atmosphere and entry personnel.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
7.3.A	Observe safe working practices.	Familiarization with international measures concerning accident prevention and occupational health.	When asked to identify dangerous conditions, safety hazards or other non-conformities,	the candidate identifies in writing key concepts regarding dangerous conditions, safety hazards or other non- conformities as noted in applicable national or international standards (such as MLC 2006 and other ILO instruments).	The candidate correctly identifies (or selects an answer that describes) several key concepts related to occupational safety and health hazards onboard vessels and their recognition and control.
7.4.A	Contribute to effective communication on board ship.	Importance of maintaining good human and working relationships aboard ship Basic teamworking principles and practice, including conflict resolution Social responsibilities; employment conditions; individual rights and obligations; dangers of drug and alcohol abuse	When asked to describe the importance of understanding and obeying orders and communicating with others in carrying out their shipboard duties,	the candidate describes in writing the importance of understanding and obeying orders and communicating with others in carrying out their shipboard duties.	The candidate identifies and describes (or select the answer that identifies and describes) the importance of teamwork, social responsibility and understanding and obeying lawful orders to enable them to effectively communicate with others in carrying out their shipboard duties.
7.5.A	Contribute to effective communication on board ship.	Ability to establish and maintain effective communications	When asked to explain the use of common shipboard terminology and technical terms.	the candidate explains in writing the use of common shipboard terminology and technical terms.	The candidate identifies and describes (or select the answer that identifies and describes) the use of common shipboard terminology and technical terms.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
7.5.B	Contribute to effective communication on board ship.	Ability to establish and maintain effective communications	When asked to explain the need for effective communication skills aboard ship,	the candidate explains in writing the need for effective communication skills aboard ship.	The candidate identifies and describes (or select the answer that identifies and describes) the need for effective communication skills related to ship operations, ship systems and emergency situations.
8.1.A	Contribute to effective human relationships on board ship	Importance of maintaining good human and working relationships aboard ship	When asked to describe why cooperation is necessary, and why interpersonal problems should be reported before they escalate,	the candidate describes in writing why cooperation is necessary, and why interpersonal problems should be reported before they escalate.	The candidate identifies and describe (or selects the answer that identifies and describes) why cooperation is necessary, and why interpersonal problems should be reported before they escalate.
8.1.B	Contribute to effective human relationships on board ship	Importance of maintaining good human and working relationships aboard ship	When asked to give examples of verbal, physical and sexual harassment,	the candidate gives in writing examples of verbal, physical and sexual harassment.	The candidate gives at least one example of (or selects an answer that describes) harassment (such as verbal, physical or sexual) or other situations that would create a hostile work environment.
8.2.A	Contribute to effective human relationships on board ship	Basic teamworking principles and practice, including conflict resolution	When asked to describe the necessity of following orders to ensure the safe and productive operation of the vessel,	the candidate describes in writing the necessity of following orders to ensure the safe and productive operation of the vessel.	 The candidate describes (or selects an answer that describes) the necessity of following orders to ensure the safe and productive operation of the vessel by stating at least 1 reason similar to the following: 1. The master of the vessel and crew will assume that the order is being complied with as they continue to operate the vessel; 2. Orders reflect the individual's role in the larger, more complex operation of the ship; and 3. When an order is given, others depend on its successful and prompt completion in order to carry out their duties.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
8.3.A	Contribute to effective human relationships on board ship.	Understand social responsibilities; employment conditions; individual rights and obligations; dangers of drug and alcohol abuse.	When asked to name organizations the seafarer has the right to report situations concerning harassment, unfair practices, or unsafe conditions,	the candidate names in writing organizations the seafarer has the right to report situations concerning harassment, unfair practices, or unsafe conditions.	 The candidate names (or selects an answer that describes) at least one of the following persons or organizations to whom the seafarer has the right to report situations concerning harassment, unfair practices, or unsafe conditions: 1. The Master; 2. The Designated Person Ashore and/or other company officials; 3. Union representatives; or 4. Appropriate federal agencies.
8.3.B	Contribute to effective human relationships on board ship.	Understand social responsibilities; employment conditions; individual rights and obligations; dangers of drug and alcohol abuse.	When asked to identify the potential impact on performing assigned duties while under the effects of alcohol, drugs and certain medications	Contributes to effective communications on board ship.	The candidate states that (or select an answer that describes how) performing assigned duties while under the effects of alcohol, drugs or certain medications is unsafe, and/or a violation of federal law because these chemicals may severely impair judgment, speech and emotional stability.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition In an approved course	Performance Behavior	Performance Standard
9.1.A	Understand and take necessary actions to control fatigue	Importance of obtaining the necessary rest Effects of sleep, schedules, and the circadian rhythm on fatigue Effects of physical stressors on seafarers Effects of environmental stressors in and outside the ship and their impact on seafarers Effects of schedule changes on seafarer fatigue	When asked to describe the effects of fatigue and how to control them,	The candidate describes the effects of fatigue on seafarers and how actions might be controlled to ensure safe performance of duties and responsibilities.	 The candidate states (or selects the answer that states) the following: 1. Importance of obtaining the necessary rest; 2. Effects of sleep, watch schedules, and the circadian rhythm; 3. Physical and environmental stressors; 4. Diet, exercise and medications/supplements; and 5. Schedule changes on seafarer fatigue.

Excerpts from the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended

and

Seafarers' Training, Certification and Watchkeeping Code, as amended

Notice: These excerpts are provided for background information. By themselves, they do not constitute Coast Guard policy.

The Manila Amendments to the annex to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978

Chapter I

General provisions

Regulation I/6

Training and assessment

Each party shall ensure that:

- .1 the training and assessment of seafarers, as required under the Convention, are administered, supervised and monitored in accordance with the provisions of section A-I/6 of the STCW Code; and
- .2 those responsible for the training and assessment of competence of seafarers, as required under the Convention, are appropriately qualified in accordance with the provisions of section A-I/6 of the STCW Code for the type and level of training and assessment involved.

Chapter VI

Emergency, occupational safety, security, medical care and survival functions

Regulation VI/1

Mandatory minimum requirements for safety familiarization, basic training and instruction for all seafarers

1 Seafarers shall receive safety familiarization and basic training or instruction in accordance with section A-VI/1 of the STCW Code and shall meet the appropriate standard of competence specified therein.

2 Where basic training is not included in the qualification for the certificate to be issued, a certificate of proficiency shall be issued, indicating that the holder has attended the course in basic training.

The Manila Amendments to the Seafarers' Training, Certification and Watchkeeping (STCW) Code

Chapter I

Standards regarding general provisions

Section A-I/6

Training and assessment

1 Each Party shall ensure that all training and assessment of seafarers for certification under the Convention is:

- .1 structured in accordance with written programmes, including such methods and media of delivery, procedures, and course material as are necessary to achieve the prescribed standard of competence; and
- .2 conducted, monitored, evaluated and supported by persons qualified in accordance with paragraphs 4, 5 and 6.

2 Persons conducting in-service training or assessment on board ship shall only do so when such training or assessment will not adversely affect the normal operation of the ship and they can dedicate their time and attention to training or assessment.

Qualifications of instructors, supervisors and assessors^{*}

3 Each Party shall ensure that instructors, supervisors and assessors are appropriately qualified for the particular types and levels of training or assessment of competence of seafarers either on board or ashore, as required under the Convention, in accordance with the provisions of this section.

In-service training

4 Any person conducting in-service training of a seafarer, either on board or ashore, which is intended to be used in qualifying for certification under the Convention, shall:

- .1 have an appreciation of the training programme and an understanding of the specific training objectives for the particular type of training being conducted;
- .2 be qualified in the task for which training is being conducted; and
- .3 if conducting training using a simulator:
 - **.3.1** have received appropriate guidance in instructional techniques involving the use of simulators; and
 - **.3.2** have gained practical operational experience on the particular type of simulator being used.

5 Any person responsible for the supervision of in-service training of a seafarer intended to be used in qualifying for certification under the Convention shall have a full understanding of the training programme and the specific objectives for each type of training being conducted.

^{*} The relevant IMO Model Course(s) may be of assistance in the preparation of courses.

Assessment of competence

6 Any person conducting in-service assessment of competence of a seafarer, either on board or ashore, which is intended to be used in qualifying for certification under the Convention, shall:

- .1 have an appropriate level of knowledge and understanding of the competence to be assessed;
- .2 be qualified in the task for which the assessment is being made;
- .3 have received appropriate guidance in assessment methods and practice;
- .4 have gained practical assessment experience; and
- .5 if conducting assessment involving the use of simulators, have gained practical assessment experience on the particular type of simulator under the supervision and to the satisfaction of an experienced assessor.

Training and assessment within an institution

7 Each Party which recognizes a course of training, a training institution, or a qualification granted by a training institution, as part of its requirements for the issue of a certificate required under the Convention, shall ensure that the qualifications and experience of instructors and assessors are covered in the application of the quality standard provisions of section A-I/8. Such qualification, experience and application of quality standards shall incorporate appropriate training in instructional techniques, and training and assessment methods and practice, and shall comply with all applicable requirements of paragraphs 4 to 6.

Chapter VI

Emergency, occupational safety, security, medical care and survival functions

Section A-VI/1

Mandatory minimum requirements for safety familiarization, basic training and instruction for all seafarers

Safety familiarization training

1 Before being assigned to shipboard duties, all persons employed or engaged on a seagoing ship, other than passengers, shall receive approved familiarization training in personal survival techniques or receive sufficient information and instruction, taking account of the guidance given in part B, to be able to:

- .1 communicate with other persons on board on elementary safety matters and understand safety information symbols, signs and alarm signals;
- .2 know what to do if:
 - .2.1 a person falls overboard,
 - .2.2 fire or smoke is detected, or
 - .2.3 the fire or abandon ship alarm is sounded;
- .3 identify muster and embarkation stations and emergency escape routes;

- .4 locate and don lifejackets;
- .5 raise the alarm and have basic knowledge of the use of portable fire extinguishers;
- .6 take immediate action upon encountering an accident or other medical emergency before seeking further medical assistance on board; and
- .7 close and open the fire, weathertight and watertight doors fitted in the particular ship other than those for hull openings.

Basic training^{*}

2 Seafarers employed or engaged in any capacity on board ship on the business of that ship as part of the ship's complement with designated safety or pollution-prevention duties in the operation of the ship shall, before being assigned to any shipboard duties:

- .1 receive appropriate approved basic training or instruction in:
 - .1.1 personal survival techniques as set out in table A-VI/1-1,
 - .1.2 fire prevention and fire fighting as set out in table A-VI/1-2,
 - .1.3 elementary first aid as set out in table A-VI/1-3, and
 - .1.4 personal safety and social responsibilities as set out in table A-VI/1-4;
- .2 be required to provide evidence of having achieved the required standard of competence to undertake the tasks, duties and responsibilities listed in column 1 of tables A-VI/1-1, A-VI/1-2, A-VI/1-3 and A-VI/1-4 through:
 - **.2.1** demonstration of competence, in accordance with the methods and the criteria for evaluating competence tabulated in columns 3 and 4 of those tables, and
 - **.2.2** examination or continuous assessment as part of an approved training programme in the subjects listed in column 2 of those tables.

3 Seafarers qualified in accordance with paragraph 2 in basic training shall be required, every five years, to provide evidence of having maintained the required standards of competence, to undertake the tasks, duties and responsibilities listed in column 1 of tables A-VI/1-1 and A-VI/1-2.

4 Parties may accept onboard training and experience for maintaining the required standard of competence in the following areas:

- .1 personal survival techniques as set out in table A-VI/1-1:
 - .1.1 don a lifejacket,
 - .1.2 board a survival craft from the ship, while wearing a lifejacket,
 - .1.3 take initial actions on boarding a lifeboat to enhance chance of survival,

^{*} The relevant IMO Model Courses may assist in the preparation of courses.

- .1.4 stream a lifeboat drogue or sea-anchor,
- .1.5 operate survival craft equipment, and
- .1.6 operate location devices, including radio equipment;
- .2 fire prevention and fire fighting as set out in table A-VI/1-2:
 - .2.1 use self-contained breathing apparatus;
 - **.2.2** effect a rescue in a smoke-filled space, using an approved smoke-generating device aboard, while wearing a breathing apparatus;

Exemptions

the length or character of its voyage are such as to render the application of the full requirements of this section unreasonable or impracticable, exempt to that extent the seafarers on such a ship or class of ships from some of the requirements, bearing in mind the safety of people on board, the ship and property and the protection of the marine environment.

Specification of minimum standard of competence in personal survival techniques

Column 1	Column 2	Column 3	Column 4	
Competence Knowledge, understanding and proficiency		Methods for demonstrating competence	Criteria for evaluating competence	
Survive at sea in the event of ship abandonment	 Types of emergency situations which may occur, such as collision, fire, foundering Types of life-saving appliances normally carried on ships Equipment in survival craft Location of personal life-saving appliances Principles concerning survival, including: value of training and drills personal protective clothing and equipment need to be ready for any emergency actions to be taken when called to survival craft stations actions to be taken when required to abandon ship actions to be taken when in the water actions to be taken when aboard a survival craft 	Assessment of evidence obtained from approved instruction or during attendance at an approved course or approved in-service experience and examination, including practical demonstration of competence to: .1 don a lifejacket .2 don and use an immersion suit .3 safely jump from a height into the water .4 right an inverted liferaft while wearing a lifejacket .5 swim while wearing a lifejacket .6 keep afloat without a lifejacket .7 board a survival craft from the ship and water while wearing a lifejacket .8 take initial actions on boarding survival craft to enhance chance of survival .9 stream a drogue or sea-anchor .10 operate survival craft equipment .11 operate location devices, including radio equipment	Action taken on identifying muster signals is appropriate to the indicated emergency and complies with established procedures The timing and sequence of individual actions are appropriate to the prevailing circumstance and conditions and minimize potential dangers and threats to survival Method of boarding survival craft is appropriate and avoids dangers to other survivors Initial actions after leaving the ship and procedures and actions in water minimize threats to survival	

Specification of minimum standard of competence in fire prevention and fire	fighting

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire	Shipboard fire-fighting organization Location of fire-fighting appliances and emergency escape routes The elements of fire and explosion (the fire triangle) Types and sources of ignition Flammable materials, fire hazards and spread of fire The need for constant vigilance Actions to be taken on board ship Fire and smoke detection and automatic alarm systems Classification of fire and applicable extinguishing agents	Assessment of evidence obtained from approved instruction or attendance at an approved course	Initial actions on becoming aware of an emergency conform with accepted practices and procedures Action taken on identifying muster signals is appropriate to the indicated emergency and complies with established procedures
Fight and extinguish fires	 Fire-fighting equipment and its location on board Instruction in: fixed installations fire-fighter's outfits personal equipment fire-fighting appliances and equipment fire-fighting methods fire-fighting agents fire-fighting procedures 	Assessment of evidence obtained from approved instruction or during attendance at an approved course, including practical demonstration in spaces which provide truly realistic training conditions (e.g., simulated shipboard conditions) and, whenever possible and practical, in darkness, of the ability to: .1 use various types of portable fire extinguishers .2 use self-contained breathing apparatus	Clothing and equipment are appropriate to the nature of the fire-fighting operations The timing and sequence of individual actions are appropriate to the prevailing circumstances and conditions Extinguishment of fire is achieved using appropriate procedures, techniques and fire-fighting agents Breathing apparatus procedures and techniques comply with accepted practices and procedures

Column 1	Column 2		Column 3	Column 4
Competence	Knowledge, understanding and proficiency		Methods for demonstrating competence	Criteria for evaluating competence
Fight and extinguish fires (<i>continued</i>)	.8 use of breathing apparatus for fighting fires and effecting rescues	.3	extinguish smaller fires, e.g., electrical fires, oil fires, propane fires	
		.4	extinguish extensive fires with water, using jet and spray nozzles	
		.5	extinguish fires with foam, powder or any other suitable chemical agent	
		.6	enter and pass through, with lifeline but without breathing apparatus, a compartment into which high-expansion foam has been injected	
		.7	fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus	
		.8	extinguish fire with water fog or any other suitable fire-fighting agent in an accommodation room or simulated engine-room with fire and heavy smoke	
		.9	extinguish oil fire with fog applicator and spray nozzles, dry chemical powder or foam applicators	
		.10	effect a rescue in a smoke-filled space wearing breathing apparatus	

Specification of minimum standard of competence in elementary f	first aid
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Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Take immediate action upon encountering an accident or other medical emergency	Assessment of needs of casualties and threats to own safety Appreciation of body structure and functions Understanding of immediate measures to be taken in cases of emergency, including the ability to: .1 position casualty .2 apply resuscitation techniques .3 control bleeding .4 apply appropriate measures of basic shock management .5 apply appropriate measures in event of burns and scalds, including accidents caused by electric current .6 rescue and transport a casualty .7 improvise bandages and use materials in the emergency kit	Assessment of evidence obtained from approved instruction or during attendance at an approved course	The manner and timing of raising the alarm is appropriate to the circumstances of the accident or medical emergency The identification of probable cause, nature and extent of injuries is prompt and complete and the priority and sequence of actions is proportional to any potential threat to life Risk of further harm to self and casualty is minimized at all times

Specification of minimum standard of competence in personal safety and social responsibilities

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Comply with emergency procedures	Types of emergency which may occur, such as collision, fire, foundering Knowledge of shipboard contingency plans for response to emergencies Emergency signals and specific duties allocated to crew members in the muster list; muster stations; correct use of personal safety equipment Action to take on discovering potential emergency, including fire, collision, foundering and ingress of water into the ship Action to take on hearing emergency alarm signals Value of training and drills Knowledge of escape routes and internal communication and alarm systems	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Initial action on becoming aware of an emergency conforms to established emergency response procedures Information given on raising alarm is prompt, accurate, complete and clear
Take precautions to prevent pollution of the marine environment	Basic knowledge of the impact of shipping on the marine environment and the effects of operational or accidental pollution on it Basic environmental protection procedures Basic knowledge of complexity and diversity of the marine environment	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Organizational procedures designed to safeguard the marine environment are observed at all times

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Observe safe working practices	Importance of adhering to safe working practices at all times Safety and protective devices available to protect against potential hazards aboard ship Precautions to be taken prior to entering enclosed spaces Familiarization with international measures concerning accident prevention and occupational health [*]	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Safe working practices are observed and appropriate safety and protective equipment is correctly used at all times
Contribute to effective communications on board ship	Understand the principles of, and barriers to, effective communication between individuals and teams within the ship Ability to establish and maintain effective communications	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Communications are clear and effective at all times
Contribute to effective human relationships on board ship	Importance of maintaining good human and working relationships aboard ship Basic teamworking principles and practice, including conflict resolution Social responsibilities; employment conditions; individual rights and obligations; dangers of drug and alcohol abuse	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Expected standards of work and behaviour are observed at all times

^{*} The ILO Code of Practice on "Accident Prevention on Board Ship at Sea and in Port" may be of assistance in the preparation of courses.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Understand and take necessary actions to control fatigue	Importance of obtaining the necessary rest Effects of sleep, schedules, and the circadian rhythm on fatigue Effects of physical stressors on seafarers Effects of environmental stressors in and outside the ship and their impact on seafarers Effects of schedule changes on seafarer fatigue	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Fatigue management practices are observed and appropriate actions are used at all times

GUIDANCE REGARDING PROVISIONS OF THE ANNEX TO THE STCW CONVENTION PART B

Chapter I

Guidance regarding general provisions

Section B-I/6 *Guidance regarding training and assessment*

Qualifications of instructors and assessors

1 Each Party should ensure that instructors and assessors are appropriately qualified and experienced for the particular types and levels of training or assessment of competence of seafarers, as required under the Convention, in accordance with the guidelines in this section.

In-service training and assessment

2 Any person, on board or ashore, conducting in-service training of a seafarer intended to be used in qualifying for certification under the Convention should have received appropriate guidance in instructional techniques^{*}.

3 Any person responsible for the supervision of in-service training of a seafarer intended to be used in qualifying for certification under the Convention should have appropriate knowledge of instructional techniques and of training methods and practice.

4 Any person, on board or ashore, conducting an in-service assessment of the competence of a seafarer intended to be used in qualifying for certification under the Convention should have:

- .1 received appropriate guidance in assessment methods and practice^{*}; and
- .2 gained practical assessment experience under the supervision and to the satisfaction of an experienced assessor.

5 Any person responsible for the supervision of the in-service assessment of competence of a seafarer intended to be used in qualifying for certification under the Convention should have a full understanding of the assessment system, assessment methods and practice^{*}.

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Chapter VI

Guidance regarding emergency, occupational safety, security, medical care and survival functions

Section B-VI/1

Guidance regarding mandatory requirements for safety familiarization and basic training and instruction for all seafarers

Fire prevention and fire fighting

1 The training in fire prevention and fire fighting required by section A-VI/1 should include at least the theoretical and practical elements itemized in paragraphs 2 to 4 hereunder^{*}.

^{*} The relevant IMO Model Course(s) may be of assistance in the preparation of courses.

Theoretical training

- 2 The theoretical training should cover:
 - .1 the three elements of fire and explosion (the fire triangle): fuel; source of ignition; oxygen;
 - .2 ignition sources: chemical; biological; physical;
 - .3 flammable materials: flammability; ignition point; burning temperature; burning speed; thermal value; lower flammable limit (LFL); upper flammable limit (UFL); flammable range; inerting; static electricity; flashpoint; auto-ignition;
 - .4 fire hazard and spread of fire by radiation, convection and conduction;
 - .5 reactivity;
 - .6 classification of fires and applicable extinguishing agents;
 - .7 main causes of fire on board ships: oil leakage in engine-room; cigarettes; overheating (bearings); galley appliances (stoves, flues, fryers, hotplates, etc.); spontaneous ignition (cargo, wastes, etc.); hot work (welding, cutting, etc.); electrical apparatus (short circuit, non-professional repairs); reaction, self-heating and auto-ignition; arson; static electricity;
 - .8 fire prevention;
 - .9 fire- and smoke-detection systems; automatic fire alarms;
 - .10 fire-fighting equipment, including:
 - **.10.1** fixed installations on board and their locations; fire mains, hydrants; international shore connection; smothering installations, carbon dioxide (CO₂), foam; pressure water spray system in special category spaces, etc.;

The relevant IMO Model Course(s) may be of assistance in the preparation of courses.

automatic sprinkler system; emergency fire pump; emergency generator; chemical powder applicants; general outline of required and available mobile apparatus; high-pressure fog system; high-expansion foam; new developments and equipment;

- **.10.2** firefighter's outfit, personal equipment; breathing apparatus; resuscitation apparatus; smoke helmet or mask; fireproof lifeline and harness; and their location on board; and
- .10.3 general equipment, including fire hoses, nozzles, connections, fire axes; portable fire extinguishers; fire blankets;
- .11 construction and arrangements, including escape routes; means for gas-freeing tanks; Class A, B and C divisions; inert gas systems;
- .12 ship fire-fighting organization, including general alarm; fire control plans, muster stations and duties of individuals; communications, including ship–shore when in port; personnel safety procedures; periodic shipboard drills; patrol systems;
- .13 practical knowledge of resuscitation methods;
- .14 fire-fighting methods, including sounding the alarm; locating and isolating; jettisoning; inhibiting; cooling; smothering; extinguishing; reflash watch; smoke extraction; and
- **.15** fire-fighting agents, including water, solid jet, spray, fog, flooding; high-, medium- and low-expansion foam; carbon dioxide (CO₂); aqueous-film-forming foam (AFFF); dry chemical powder; new developments and equipment.

Practical training

3 The practical training given below should take place in spaces which provide truly realistic training conditions (e.g., simulated shipboard conditions), and whenever possible and practical should also be carried out in darkness as well as by daylight and should allow the trainees to acquire the ability to:

- .1 use various types of portable fire extinguishers;
- .2 use self-contained breathing apparatus;
- .3 extinguish smaller fires, e.g., electrical fires, oil fires and propane fires;
- .4 extinguish extensive fires with water (jet and spray nozzles);
- .5 extinguish fires with either foam, powder or any other suitable chemical agent;
- .6 enter and pass through, with lifeline but without breathing apparatus, a compartment into which high-expansion foam has been injected;
- .7 fight fire in smoke-filled enclosed spaces, wearing self-contained breathing apparatus;
- .8 extinguish fire with water fog or any other suitable fire-fighting agent in an accommodation room or simulated engine-room with fire and heavy smoke;

- .9 extinguish an oil fire with fog applicator and spray nozzles; dry chemical powder or foam applicators; and
- .10 effect a rescue in a smoke-filled space, wearing breathing apparatus.

General

4 Trainees should also be made aware of the necessity of maintaining a state of readiness on board.

Elementary first aid*

5 The training in elementary first aid required by regulation VI/1 as part of the basic training should be given at an early stage in vocational training, preferably during pre-sea training, to enable seafarers to take immediate action upon encountering an accident or other medical emergency until the arrival of a person with first-aid skills or the person in charge of medical care on board.

Personal safety and social responsibilities^{*}

6 Administrations should bear in mind the significance of communication and language skills in maintaining safety of life and property at sea and in preventing marine pollution. Given the international character of the maritime industry, the reliance on voice communications from ship to ship and from ship-to-shore, the increasing use of multinational crews, and the concern that crew members should be able to communicate with passengers in an emergency, adoption of a common language for maritime communications would promote safe practice by reducing the risk of human error in communicating essential information.

7 Although not universal, by common practice English is rapidly becoming the standard language of communication for maritime safety purposes, partly as a result of the use of the IMO Standard Marine Communication Phrases.

8 Administrations should consider the benefits of ensuring that seafarers have an ability to use at least an elementary English vocabulary, with an emphasis on nautical terms and situations.

The relevant IMO Model Course(s) may be of assistance in the preparation of courses.