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NVIC 09-14
25 JAN 2014

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 09-14

Subj: GUIDELINES FOR QUALIFICATION FOR STCW ENDORSEMENTS FOR
ADVANCED FIREFIGHTING

Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping
for Seafarers, 1978, as amended (STCW), Regulation VI/3 and Section A-VI/3 of STCW
Code, incorporated into regulations at 46 Code of Federal Regulations (CFR) 11.102

1. PURPOSE. This Navigation and Vessel Inspection Circular (NVIC) provides guidance for qualification for and revalidation of STCW endorsements for Advanced Firefighting.
2. ACTION. The Coast Guard will use this NVIC, 46 CFR 11.201(h), and 46 CFR 11.303 to determine which officers and ratings are required to hold national and STCW endorsements for proficiency in Advanced Firefighting and whether such mariners are qualified to hold those endorsements. Officers in Charge, Marine Inspection (OCMIs) should also bring this NVIC to the attention of the maritime industry within their zones of responsibility. This NVIC is available on the World Wide Web at <http://www.uscg.mil/hq/cg5/nvic>. The Coast Guard will distribute it by electronic means only.
3. DIRECTIVES AFFECTED. This NVIC cancels NVIC 01-02, *Guidelines for Assessment of Seafarers' Proficiency in Advanced Fire-Fighting Through Demonstrations of Skills*.
4. BACKGROUND.
 - a. The STCW Convention and STCW Code set forth standards for training and certification for merchant mariners, including qualification requirements and standards of competence for proficiency in Advanced Firefighting.

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- b. In order to implement the 1995 amendments to STCW, the Coast Guard published NVIC 01-02 providing guidance on how mariners may demonstrate proficiency in Advanced Firefighting.
- 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 domestic laws in 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 01-02.

5. DISCUSSION.

- a. As specified in 46 CFR 11.201(h), each applicant for an original STCW officer endorsement must present a certificate of completion from a Coast Guard approved or accepted Advanced Firefighting course. The course must have been completed within the 5 years before the date the completed application was received by the Coast Guard.
- b. Policy regarding proficiency in Advanced Firefighting is located in this NVIC. Enclosure (1) gives specific requirements for qualifying for proficiency in Advanced Firefighting; Enclosure (2) contains the national assessment guidelines; and Enclosure (3) contains relevant excerpts from the STCW Convention and STCW Code.
- c. Training providers may use the guidelines in Enclosure (2) to determine whether students have achieved competency in Advanced Firefighting, or they may develop and use alternatives. Under 46 CFR 10.402(e), if developing alternatives, a training institution must submit any deviations from these guidelines to the Coast Guard for approval before use. A training institution submitting a course should state that the guidelines in Enclosure (2) will apply, or provide the alternative guidelines it proposes to use.
- d. As specified in 46 CFR 11.303(b), mariners holding STCW officer endorsements are required to demonstrate continued proficiency for the revalidation of the Advanced Firefighting endorsement. Mariners who have at least 1 year (360 days) of seagoing service within the previous 5 years will be considered to have met a portion of this requirement; the remainder must be demonstrated ashore in Coast Guard approved or accepted *Advanced Firefighting Revalidation* training that includes assessment in those Advanced Firefighting competencies that cannot be demonstrated through sea service. Mariners who do not have 1 year of service in the previous 5 years must either take the original course, or an approved or accepted *Advanced Firefighting Refresher* course that assesses continued proficiency in all competencies related to Advanced Firefighting.

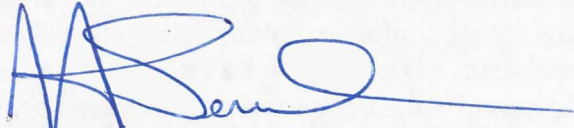
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- e. To demonstrate original or continued proficiency in Advanced Firefighting, the mariner need only submit the course completion certificate(s) to the Coast Guard. The Coast Guard recommends that the mariner retain a copy of the course completion certificate(s) for his or her records.
 - f. This NVIC primarily provides guidance for those officer endorsement candidates seeking to demonstrate the required proficiency in Advanced Fire Fighting. There are no regulatory requirements for any ratings to hold an Advanced Firefighting Endorsement. Nonetheless, it is possible for a rating to obtain an Advanced Firefighting Endorsement, either because of an employer requirement or the nature of the vessel upon which he or she serves requires competence in those skills associated with advanced fire fighting. Ratings may qualify for and obtain an Advanced Firefighting Endorsement by using this NVIC and the associated enclosures 1-3 herein.
6. DISCLAIMER. 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.
8. RECORDS MANAGEMENT CONSIDERATIONS. 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.

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9. FORMS/REPORTS. None.

10. QUESTIONS. All questions regarding implementation of this Circular should be directed to the Mariner Credentialing Program Policy Division (CG-CVC-4), at (202) 372-2357 or MMCPolicy@uscg.mil. To obtain approval for an alternative to the assessments described in Enclosure (2), contact the National Maritime Center at (888) 427-5662 or IAskNMC@uscg.mil.



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Assistant Commandant for Prevention Policy

- Encl: (1) Discussion of Qualification Requirements for Advanced Firefighting
(2) Assessment Guidelines for Advanced Firefighting
(3) Excerpts from STCW Convention and STCW Code

**DISCUSSION OF QUALIFICATION REQUIREMENTS FOR
ADVANCED FIREFIGHTING**

1. GENERAL. This enclosure provides guidance for mariners to qualify for International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW) endorsements for Proficiency in Advanced Firefighting.
2. SEA SERVICE, TRAINING, AND DEMONSTRATIONS.
 - a. In accordance with 46 CFR 11.303(a), an applicant for an original STCW officer endorsement must provide evidence of meeting the standard of competence set out in Table A-VI/3 of the STCW Code. Mariners should demonstrate having met this standard by completion of an approved or accepted course, as specified in 46 CFR 11.201(h).
 - b. In accordance with 46 CFR 11.303(b), an applicant for renewal of an STCW officer endorsement must provide evidence of maintaining the standard of competence set out in Table A-VI/3 of the STCW Code.
 - 1) The Coast Guard will accept onboard training and experience, through evidence of 1 year (360 days) of sea service within the previous 5 years as meeting this requirement for the following areas:
 - i) Control firefighting operations aboard ships:
 - a) Firefighting procedures at sea and in port, with particular emphasis on organization, tactics and command;
 - b) Communication and coordination during firefighting operations;
 - c) Ventilation control, including smoke extraction;
 - d) Control of fuel and electrical systems;
 - e) Firefighting process hazards (dry distillation, chemical reactions, boiler uptake);
 - f) Fire precautions and hazards associated with the storage and handling of materials;
 - g) Management and control of injured persons; and
 - h) Procedures for coordination with shore-based firefighters.
 - ii) Inspect and service fire-detection and extinguishing systems and equipment:
 - a) Requirements for statutory and classification.

- 2) The Coast Guard will only accept evidence of assessments conducted ashore in an approved or accepted *Advanced Firefighting Revalidation* course as meeting this requirement for the following areas:
 - i) Control firefighting operations aboard ships:
 - a) Use of water for fire-extinguishing, the effect on ship stability, precautions, and corrective procedures; and
 - b) Firefighting involving dangerous goods;
 - ii) Organize and train fire parties;
 - iii) Inspect and service fire-detection and extinguishing systems and equipment:
 - a) Fire-detection systems; fixed fire-extinguishing systems; portable and mobile fire-extinguishing equipment, including appliances, pumps and rescue; salvage; life support; personal protective and communication equipment; and
 - iv) Investigate and compile reports on incidents involving fire.
- 3) Mariners who do not meet the requirement for 1 year of sea service within the last 5 years will be required to complete an approved or accepted Advanced Firefighting course or an approved or accepted *Advanced Firefighting Refresher* course that provides assessments for all Advanced Firefighting competencies.

3. GRANDFATHERING AND TRANSITION PROVISIONS.

- a. Until December 31, 2016, mariners may apply for an original endorsement or renew an existing endorsement by providing evidence of successfully completing approved training in Advanced Firefighting, or by holding a national officer endorsement that required Advanced Firefighting training. [46 CFR 11.301(g)(3)].
- b. After December 31, 2016, mariners must provide evidence of maintaining the standards of competence in advanced firefighting as described in 46 CFR 11.303(b).

Assessment Guidelines for Advanced Firefighting

Standard of Competence

As is specified in 46 CFR 11.303(a) to qualify for an STCW officer endorsement, mariners must meet and/or maintain the standards of competence for Advanced Firefighting in STCW Code Table A-VI/3. The table below is adopted from Table A-VI/3 of the STCW Code (found in Enclosure (3)) to assist the candidate and assessor in the demonstration of competency.

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 or Qualified Assessor to ensure that critical tasks are not overlooked when evaluating a candidate's practical demonstration. Training institutions and Qualified Assessors should develop their own checklists for use in conducting the assessments in a complete and structured manner.

Notes

The following note is referred to in the "Task No." column of the assessment table that follows:

Note 1 The assessment corresponds to a revalidation component that must be demonstrated in Coast Guard approved training ashore in order for mariners with 1 year of service in the previous 5 years to renew competency in Advanced Firefighting.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Assessment Guidelines for Advanced Firefighting

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.A	Control fire-fighting operations aboard ships	Fire-fighting procedures at sea and in port, with particular emphasis on organization, tactics and command	In an approved or accepted course, in simulated shipboard conditions, given a full set of ship's fire and emergency plans and procedures, and one of the following fire scenarios: 1. engine-room fire; 2. cargo hold fire, or 3. service space fire,	upon receipt of a report or other indication of fire, the candidate takes all required initial actions to alert required parties and dispatch appropriate assistance.	The candidate promptly orders the sounding of the correct signals and takes all required initial actions in a timely manner and in accordance with the ship's fire and emergency plans and procedures.
1.1.B	Control fire-fighting operations aboard ships	Fire-fighting procedures at sea and in port, with particular emphasis on organization, tactics and command	In an approved or accepted course, in simulated shipboard conditions, given a full set of ship's fire and emergency plans and procedures, and one of the following fire scenarios: 1. engine-room fire; 2. cargo hold fire, or 3. service space fire,	upon receipt of initial on-scene reports from fire party or parties, the candidate makes an initial assessment of the fire (location, extent, and severity) and determines courses of action to control and extinguish the fire.	<ol style="list-style-type: none"> 1. The candidate uses initial reports in conjunction with the ship's fire and emergency plans and procedures to correctly determine the location, extent, and severity of the fire. 2. Courses of action developed are consistent with ship's fire and emergency plans and procedures, and accepted tactics, strategies, and doctrines of shipboard firefighting.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.2.A	Control fire-fighting operations aboard ships	<p>Fire-fighting procedures at sea and in port, with particular emphasis on organization, tactics and command</p> <p>Communication and co-ordination during fire-fighting operations</p> <p>Ventilation control, including smoke extraction</p> <p>Control of fuel and electrical systems</p> <p>Management and control of injured persons</p>	<p>In an approved or accepted course, in simulated shipboard conditions, given a full set of ship's fire and emergency plans and procedures, and one of the following fire scenarios:</p> <ol style="list-style-type: none"> 1. engine-room fire; 2. cargo hold fire, or 3. service space fire, 	<p>the candidate demonstrates command, control, communication, and coordination of a simulated shipboard firefighting operation by:</p> <ol style="list-style-type: none"> 1. ordering all necessary system shutdowns, notifications, and movements of passengers and crew; and 2. deploying added fire parties to confine and extinguish the fire, rescue, remove, and treat casualties, and overhaul the fire. 	<ol style="list-style-type: none"> 1. The candidate's actions: <ol style="list-style-type: none"> a. are timely, complete, and in accordance with ship's fire and emergency plans and procedures; b. minimize or mitigate risk to the injured, and to other passengers and crew; and c. are appropriate to the scenario and information received from periodic progress reports; 2. Communications are clear, concise, and readily understood; fire parties and crew respond to orders as intended; 3. Actions taken to coordinate operations achieve desired results; 4. Actions taken to minimize spread of smoke using ventilation controls are timely, effective, and consistent with the ship's fire and emergency plans and procedures; 5. Actions taken to secure fuel and electrical systems are timely, effective, and consistent with the ship's fire and emergency plans and procedures; and 6. Management and control of injured persons are timely, consistent with the ship's fire and emergency plans and procedures, and in accordance with accepted emergency medical practice.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.3.A <i>Note 1</i>	Control fire-fighting operations aboard ships	Use of water for fire extinguishing, the effect on ship stability, precautions and corrective procedures	In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios: 1. engine-room fire; 2. cargo hold fire, or 3. service space fire,	the candidate determines the effect of streams of firefighting water on ship's stability and describes appropriate precautionary and corrective measures that could be taken in accordance with the ship's fire and emergency plans and procedures to maintain or prolong stability.	1. The candidate's qualitative estimates of onboard water retention based on differences between fire-stream flow and run-off based upon calculations, reports, and observations are correct; and 2. The candidate correctly describes timely and effective precautionary, compensating, and corrective actions that could be taken to maintain or prolong ship's stability based on expectations, predictions, calculations, and observations of effects of firefighting water.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.4.A	Control fire-fighting operations aboard ships	Fire-fighting process hazards (dry distillation, chemical reactions, boiler uptake fires, etc.)	<p>In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios:</p> <ol style="list-style-type: none"> 1. solid metal fire; 2. chemical fire; 3. boiler uptake fire; or 4. smoldering fire in a closed room, 	<p>the candidate demonstrates command, control, communication, and coordination of a simulated shipboard firefighting operation by:</p> <ol style="list-style-type: none"> 1. ordering all necessary system shutdowns, notifications, and movements of passengers and crew; and 2. deploying added fire parties to confine and extinguish the fire, rescue, remove, and treat casualties, and overhaul the fire. 	<ol style="list-style-type: none"> 1. The candidate uses initial reports in conjunction with the ship's fire and emergency plans and procedures to correctly determine the location, extent, and severity of the fire. 2. Courses of action developed are consistent with ship's fire and emergency plans and procedures, and accepted tactics, strategies, and doctrines of shipboard firefighting, including selection of the: <ol style="list-style-type: none"> a. proper fire extinguishing media to combat the fire; and b. proper fire extinguishing technique to combat the fire.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.5.A <i>Note 1</i>	Control fire-fighting operations aboard ships	Fire fighting involving dangerous goods	<p>In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios:</p> <ol style="list-style-type: none"> 1. petrochemical fire; 2. insulation fire; or 3. unknown substance fire, 	<p>the candidate demonstrates command, control, communication, and coordination of a simulated shipboard firefighting operation by:</p> <ol style="list-style-type: none"> 1. ordering all necessary system shutdowns, notifications, and movements of passengers and crew; and 2. deploying added fire parties to confine and extinguish the fire, rescue, remove, and treat casualties, and overhaul the fire. 	<ol style="list-style-type: none"> 1. The candidate uses initial reports in conjunction with the ship's fire and emergency plans and procedures to correctly determine the location, extent, and severity of the fire. 2. Courses of action developed are consistent with ship's fire and emergency plans and procedures, and accepted tactics, strategies, and doctrines of shipboard firefighting, including selection of the: <ol style="list-style-type: none"> a. proper fire extinguishing media to combat the fire; and b. proper fire extinguishing technique to combat the fire.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.A	Control fire-fighting operations aboard ships	Fire precautions and hazards associated with the storage and handling of materials (paints, etc.)	<p>In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios:</p> <ol style="list-style-type: none"> 1. paint locker fire; 2. stateroom fire; or 3. cleaning gear locker fire, 	<p>the candidate demonstrates command, control, communication, and coordination of a simulated shipboard firefighting operation by:</p> <ol style="list-style-type: none"> 1. ordering all necessary system shutdowns, notifications, and movements of passengers and crew; and 2. deploying added fire parties to confine and extinguish the fire, rescue, remove, and treat casualties, and overhaul the fire. 	<ol style="list-style-type: none"> 1. The candidate uses initial reports in conjunction with the ship's fire and emergency plans and procedures to correctly determine the location, extent, and severity of the fire. 2. Courses of action developed are consistent with ship's fire and emergency plans and procedures, and accepted tactics, strategies, and doctrines of shipboard firefighting, including selection of the: <ol style="list-style-type: none"> a. proper fire extinguishing media to combat the fire; and b. proper fire extinguishing technique to combat the fire.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.7.A	Control fire-fighting operations aboard ships	Procedures for coordination with shore-based fire fighters	<p>In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios:</p> <ol style="list-style-type: none"> 1. engine-room fire; 2. cargo hold fire, or 3. service space fire, 	the candidate demonstrates command, control, communication, and coordination with shoreside firefighting personnel.	<p>The candidate:</p> <ol style="list-style-type: none"> 1. Uses initial reports in conjunction with the ship's fire and emergency plans and procedures to correctly determine the location, extent, and severity of the fire. 2. Contacts the local fire department of the port the vessel is in or heading to: <ol style="list-style-type: none"> a. request assistance; b. provide information concerning the nature of the fire and what actions have been taken; c. the equipment or supplies that will be needed; and d. integrating into the local incident command system; and 3. Assists the local fire department with: <ol style="list-style-type: none"> a. the logistics of getting people and equipment on board; b. maintaining ship stability; c. advice about shipboard strategy and tactics; and d. providing information as needed and assisting with post incident reports and planning.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.A <i>Note 1</i>	Organize and train fire parties	Preparation of contingency plans Composition and allocation of personnel to fire parties Strategies and tactics for control of fires in various parts of the ship	In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios: 1. a cargo hold fire; 2. an engine-room fire; 3. a galley fire, or 4. a living-space fire,	the candidate prepares a contingency plan that includes the composition and allocation of personnel to fire parties and has a stated strategy and tactics for containing, controlling and extinguishing the fire.	The candidate's: 1. Contingency plan is consistent with ship's fire and emergency plans and procedures; fire party assignments are consistent with training and physical abilities of personnel; 2. Strategy and tactics are consistent with ship's fire and emergency plans and procedures, and accepted doctrines and procedures of shipboard firefighting for the situation given and resources available.
2.1.B <i>Note 1</i>	Organize and train fire parties	Preparation of contingency plans Composition and allocation of personnel to fire parties Strategies and tactics for control of fires in various parts of the ship	In an approved or accepted course, in simulated shipboard conditions, given a ship's fire and emergency plans and procedures and having one or more fire parties fighting one of the following fire scenarios: 1. a cargo hold fire; 2. an engine-room fire; 3. a galley fire, or 4. a living-space fire,	the candidate plans, executes, and evaluates (critiques) a fire drill for controlling and extinguishing the type of fire given.	The candidate's drill, plan, execution, and evaluation (critique): 1. Is consistent with ship's fire and emergency plans and procedures, 2. Makes fire-party assignments consistent with training and physical abilities of personnel, 3. Includes specific performance goals and standards for acceptable versus unacceptable drill execution, and 4. Employs strategy and tactics consistent with accepted doctrines and procedures of shipboard firefighting for the situation given and resources available.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.1.A <i>Note 1</i>	Inspect and service fire detection and fire-extinguishing systems and equipment	Fire-detection systems; fixed fire-extinguishing systems; portable and mobile fire extinguishing equipment, including appliances, pumps and rescue, salvage, life-support, personal protective and communication equipment	In an approved or accepted course, in simulated shipboard conditions, equipped with the following: <ol style="list-style-type: none"> 1. fire detection system; 2. a CO₂ flooding system; 3. a fixed fire extinguishing system; 4. mobile and portable fire extinguishers; 5. a fire alarm system; 6. a fire-main system including hydrants, hoses, and nozzles; 7. a fire pump; 8. a submersible or de-watering pump; 9. a fire-fighter's outfit; 10. a breathing apparatus; 11. a portable two-way radio, and given a precautionary safety warning on the dangers of, and safeguards to prevent, accidental activation of extinguishing systems and deactivation of fire detection and fire extinguishing systems,	when asked to simulate the inspection and service of each system, the candidate demonstrates and describes the proper inspection and service requirements of each system or piece of equipment without actually activating, de-activating, or disabling any system or item of equipment.	<ol style="list-style-type: none"> 1. The candidate's descriptions and demonstrations of inspection and service requirements are complete and correct, in accordance with applicable manufacturers' instructions, standard operating procedures, fire and emergency plans, safety procedures, and good practice; and 2. No safety violations are observed, and no system is activated, de-activated, or otherwise disabled as a result of the demonstration.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.1.B <i>Note 1</i>	Inspect and service fire detection and fire-extinguishing systems and equipment	Fire-detection systems; fixed fire-extinguishing systems; portable and mobile fire extinguishing equipment, including appliances, pumps and rescue, salvage, life-support, personal protective and communication equipment	In an approved or accepted course, in simulated shipboard conditions, equipped with the following: <ol style="list-style-type: none"> 1. fire detection system; 2. a CO₂ flooding system; 3. a fixed fire extinguishing system; 4. mobile and portable fire extinguishers; 5. a fire alarm system; 6. a fire-main system including hydrants, hoses, and nozzles; 7. a fire pump; 8. a submersible or de-watering pump; 9. a fire-fighter's outfit; 10. a breathing apparatus; 11. a portable two-way radio, and given a precautionary safety warning on the dangers of, and safeguards to prevent, accidental activation of extinguishing systems and deactivation of fire detection and fire extinguishing systems,	when asked to simulate the activation and operation of each system, the candidate demonstrates and describes the proper means to activate and operate each system or piece of equipment without actually activating, de-activating, or disabling any system or item of equipment.	<ol style="list-style-type: none"> 1. The candidate's descriptions and demonstrations of ways to activate and operate each system or piece of equipment are complete and correct, in accordance with applicable manufacturers' instructions, standard operating procedures, fire and emergency plans, safety procedures, and good practice; and 2. No safety violations are observed; and no system is activated, de-activated, or otherwise disabled as a result of the demonstration.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.2.A	Inspect and service fire detection and fire-extinguishing systems and equipment	Requirements for statutory and classification surveys	In an approved or accepted course, in simulated shipboard conditions,	the candidate pre-inspects the ship's firefighting equipment for compliance with the applicable rules and regulations.	<p>The candidate will conduct a pre-inspection of the ship's firefighting equipment, including:</p> <ol style="list-style-type: none"> 1. The currency of the inspection certificates and records for portable fire extinguishers; 2. Determining which portable fire extinguishers require recharging and/or hydrostatic testing; 3. The currency of inspection certificates and records for semi-portable fire extinguishers; 4. Determining which semi-portable fire extinguishers require recharging and/or hydrostatic testing; 5. The currency of the inspection certificates and records for fixed fire extinguishers; 6. Determining which fixed fire extinguishers require recharging and/or hydrostatic testing; 7. Determining continued suitability of various pieces of equipment for their specified service including: <ol style="list-style-type: none"> a. fire nozzles; b. deluge system piping and nozzles; c. fireman's outfits; d. spanners; e. valves; f. axes; and g. hoses; and 8. The validity of other documentation that may be required by the inspector.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
4.1.A <i>Note 1</i>	Investigate and compile reports on incidents involving fire	Assessment of cause of incidents involving fire	In an approved or accepted course, in simulated shipboard conditions, when presented with the remains of a small, typical shipboard fire for which the point(s) of origin and cause are unknown,	the candidate describes while using burn patterns; charred debris; material and structural damage, discoloration and distortion; and other physical evidence, the process of determining the point(s) of origin of the fire.	<ol style="list-style-type: none"> 1. The candidate's descriptions of physical evidence are relevant to determining the point(s) of origin; 2. The candidate's process continually eliminates areas that are not the point(s) of origin; and 3. The candidate correctly and completely identifies point(s) of origin.
4.1.B <i>Note 1</i>	Investigate and compile reports on incidents involving fire	Assessment of cause of incidents involving fire	In an approved or accepted course, in simulated shipboard conditions, when presented with the remains of a small, typical shipboard fire for which the point(s) of origin is given and cause is unknown,	the candidate describes while using burn patterns; charred debris; material and structural damage, discoloration and distortion; and other physical evidence and reports to determine the cause of the fire.	<p>The candidate:</p> <ol style="list-style-type: none"> 1. Describes physical evidence relevant to determining the cause; and 2. Identifies the cause of the fire completely and correctly.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

Task No.	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
4.1.C <i>Note 1</i>	Investigate and compile reports on incidents involving fire	Assessment of cause of incidents involving fire	In an approved or accepted course, in simulated shipboard conditions, when presented with the remains of a small, typical shipboard fire for which the point(s) of origin and cause are given,	the candidate evaluates the point of origin, the cause, and any other relevant reports or eye-witness accounts, and describes at least one effective countermeasure.	The candidate's countermeasure(s) is (are) effective in preventing, containing, mitigating, or controlling fires having the same origin and cause in similar circumstances.

Successful completion of these Assessment Guidelines will provide evidence of meeting the standard of competence specified in Section A-VI/3 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 10.402(e), alternative guidelines must be submitted to the National Maritime Center and approved before use.

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/3

Mandatory minimum requirements for training in advanced fire fighting

1 Seafarers designated to control fire-fighting operations shall have successfully completed advanced training in techniques for fighting fire, with particular emphasis on organization, tactics and command, in accordance with the provisions of Section A-VI/3 paragraphs 1 to 4 of the STCW Code and shall meet the standard of competence specified therein.

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

**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

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

Section A-VI/3

Mandatory minimum training in advanced fire fighting

Standard of competence

1 Seafarers designated to control fire-fighting operations shall have successfully completed advanced training in techniques for fighting fire, with particular emphasis on organization, tactics and command, and shall be required to demonstrate competence to undertake the tasks, duties and responsibilities listed in column 1 of table A-VI/3.

2 The level of knowledge and understanding of the subjects listed in column 2 of table A-VI/3 shall be sufficient for the effective control of fire-fighting operations on board ship*.

3 Training and experience to achieve the necessary level of theoretical knowledge, understanding and proficiency shall take account of the guidance given in part B of this Code.

4 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence, in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-VI/3.

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

5 Seafarers qualified in accordance with paragraph 4 in advanced fire fighting 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 table A-VI/3.

6 Parties may accept onboard training and experience for maintaining the required standard of competence of table A-VI/3, in the following areas:

- .1** Control fire-fighting operations aboard ships;
 - .1.1** fire-fighting procedures at sea and in port, with particular emphasis on organization, tactics and command;
 - .1.2** communication and coordination during fire-fighting operations;
 - .1.3** ventilation control, including smoke extraction;
 - .1.4** control of fuel and electrical systems;
 - .1.5** fire-fighting process hazards (dry distillation, chemical reactions, boiler uptake, fires);
 - .1.6** fire precautions and hazards associated with the storage and handling of materials;
 - .1.7** management and control of injured persons; and
 - .1.8** procedures for coordination with shore-based fire fighters.

Table A-VI/3

Specification of minimum standard of competence in advanced fire fighting

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Control fire-fighting operations aboard ships	<p>Fire-fighting procedures at sea and in port, with particular emphasis on organization, tactics and command</p> <p>Use of water for fire-extinguishing, the effect on ship stability, precautions and corrective procedures</p> <p>Communication and co-ordination during fire-fighting operations</p> <p>Ventilation control, including smoke extraction</p> <p>Control of fuel and electrical systems</p> <p>Fire-fighting process hazards (dry distillation, chemical reactions, boiler uptake fires, etc.)</p> <p>Fire fighting involving dangerous goods</p> <p>Fire precautions and hazards associated with the storage and handling of materials (paints, etc.)</p> <p>Management and control of injured persons</p> <p>Procedures for coordination with shore-based fire fighters</p>	<p>Practical exercises and instruction conducted under approved and truly realistic training conditions (e.g., simulated shipboard conditions) and, whenever possible and practicable, in darkness</p>	<p>Actions taken to control fires are based on a full and accurate assessment of the incident, using all available sources of information</p> <p>The order of priority, timing and sequence of actions are appropriate to the overall requirements of the incident and to minimize damage and potential damage to the ship, injuries to personnel and impairment of the operational effectiveness of the ship</p> <p>Transmission of information is prompt, accurate, complete and clear</p> <p>Personal safety during fire control activities is safeguarded at all times</p>
Organize and train fire parties	<p>Preparation of contingency plans</p> <p>Composition and allocation of personnel to fire parties</p> <p>Strategies and tactics for control of fires in various parts of the ship</p>	<p>Practical exercises and instruction conducted under approved and truly realistic training conditions, e.g., simulated shipboard conditions</p>	<p>Composition and organization of fire control parties ensure the prompt and effective implementation of emergency plans and procedures</p>

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Inspect and service fire-detection and fire-extinguishing systems and equipment	Fire-detection systems; fixed fire-extinguishing systems; portable and mobile fire-extinguishing equipment, including appliances, pumps and rescue, salvage, life-support, personal protective and communication equipment Requirements for statutory and classification surveys	Practical exercises, using approved equipment and systems in a realistic training environment	Operational effectiveness of all fire-detection and fire-extinguishing systems and equipment is maintained at all times in accordance with performance specifications and legislative requirements
Investigate and compile reports on incidents involving fire	Assessment of cause of incidents involving fire	Practical exercises in a realistic training environment	Causes of fire are identified and the effectiveness of countermeasures is evaluated

**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*.

* * * * *

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