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United States Coast Guard

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NVIC 1-99
JAN 11 1999

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 1-99

Subj: REFRESHER COURSES FOR CONTINUED PROFESSIONAL COMPETENCE FOR LICENSE RENEWALS

1. PURPOSE.

a. This Circular provides policy guidance on the content of approved refresher training programs used to qualify candidates for renewals of licenses under Title 46, Code of Regulations (CFR), 10.209 (c)(iii) (license renewal requirements). This guidance also applies when the license holder is issued an endorsement under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended for service on or after February 1, 2002, on seagoing ships of 200 gross registered tons or more, but the applicant: (a) has not had at least a year of sea service within the previous five years; (b) has not passed a comprehensive examination or exercise administered by the Coast Guard; or (c) cannot present evidence of employment in a position closely related to the operation, construction or repair of vessels for at least three years in the previous five years. This training is not required for those who apply for a renewal for continuity purposes only.

b. The refresher training program described in this guidance does not include all of the requirements necessary for maintaining a valid STCW endorsement. Candidates for an STCW endorsement at renewal must also have documentary evidence that they have maintained competence in basic safety (i.e., basic fire fighting, elementary first aid, personal survival, and personal safety and social responsibility). Likewise, candidates for renewal who do meet one of the criteria specified in paragraph 1a.(a) through (c), must still demonstrate competency in Bridge Resource Management. Other requirements (e.g., radar endorsement) may also apply to those renewing a U.S. license or document.

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2. DIRECTIVES AFFECTED. None.

3. BACKGROUND.

a. The STCW Code section A- I/11 requires the establishment of continued professional competence every five years. This requirement may be met by one of several options, one of which is successful completion of an approved course or courses. U.S. regulations on license renewal in 46 CFR 10.209 (c)(iii) are consistent with the STCW regulations.

b. STCW Regulation I/11 requires Parties to the Convention to "formulate or promote the formulation of a structure of refresher and updating courses" in consultation with those concerned. The Coast Guard consulted with the Merchant Marine Personnel Advisory Committee (MERPAC) regarding the preparation of a syllabus for an approved or accepted refresher training program. The Committee agreed to this guidance at its meeting in March of 1998. MERPAC will keep this guidance under review and ensure it is kept up to date.

4. DISCUSSION.

a. The Coast Guard may approve or accept a refresher training program under 46 CFR Subpart C, for license renewals under 46 CFR 10.209(c)(iii) when:

(1) The individuals conducting training and assessment activities are appropriately qualified (see Navigation and Vessel Inspection Circular (NVIC) 6-97 "Guidance on Qualified Instructors and Designed Examiners" for guidance on approved instructors and designated examiners);

(2) The Coast Guard or Coast Guard-accepted Quality Standards System (QSS) Monitors the program (see NVIC 5-95 "Guidelines for Organizations offering Coast Guard Approved Courses" for guidelines for organizations offering Coast Guard-approved courses, and NVIC 7-97 "Guidance on STCW Quality Standards Systems (QSS) for Merchant Mariner Courses or Training Programs" for guidance on STCW QSS's for merchant mariner courses or training programs); and

(3) The program provides sufficient training to refresh a student's knowledge, understanding, and proficiency in the following areas:

(a) For deck officers:

1. Bridge Teamwork Procedures/Bridge Resource Management, including but not limited to working with unlicensed members of the watch, navigating with pilot embarked, and coordinating with the engine room in the event of a propulsion or steering failure;

2. Principles of keeping a navigational watch (as prescribed in sections A-VIII/2 and B-VIII/2 of the STCW Code), voyage planning, including mandatory routing and reporting systems; proper use of GMDSS to avoid false alerts, and application of International Collision Regulations;

3. Rest requirements and work hour limits which apply to seafarers engaged or employed on seagoing ships;

4. Conduct of shipboard drills to maintain competence in basic safety and proficiency in survival craft and rescue boats; and the role of the officer who participates as an instructor or assessor in on-board training and assessment programs;

5. Responsibilities when responding to persons in distress at sea;

6. Recent developments in technology, particularly how it may affect the use of charts, position fixing, collision avoidance, and watchkeeping arrangements; and

7. Information on recent developments in national and international law affecting safety of life at sea or prevention of damage to the marine environment.

(b) For engineering officers:

1. Principles of keeping an engineering watch (as prescribed in sections A-VIII/2 and B-VIII/2 of the STCW Code);

2. Coordination with the bridge in the event of a propulsion or steering failure;

3. Rest requirements and work hour limits which apply to seafarers engaged or employed on seagoing ships;

4. Conduct of shipboard drills to maintain competence in basic safety and proficiency in survival craft and rescue boats; and the role of the officer who participates as an instructor or assessor in on-board training and assessment programs;

5. Responsibilities when responding to persons in distress at sea;

6. Information on recent developments in marine technology, particularly how it may affect main engine control, operation and maintenance of automated vital systems and electronic installations; and

7. Information on recent developments in national and international law affecting safety of life at sea or prevention of damage to the marine environment.

b. Enclosures (1) and (2) contain tables with training objectives, assessment criteria, and recommended amount of time for each of the above subjects in the refresher training program for Deck and Engineering Officers, respectively. The tables include variations recognized when simulation is used.

c. Direct questions on approval of refresher training programs to:

Commanding Officer
National Maritime Center (NMC-4B)
4200 Wilson Boulevard, Suite 510
Arlington, VA 22203-1804
Telephone Number: 703-235-0018
Fax Number: 703-235-1062

5. ACTION. Officers in Charge Marine Inspection should use this circular as guidance for oversight of refresher training programs offered in their zone. Regional Examination Centers should accept certificates of completion from Coast Guard-approved or accepted training programs based on this NVIC as meeting the requirement of 46 CFR 10.209(c)(iii).

JOSEPH J. ANGELO
Acting Assistant Commandant for Marine
Safety and Environmental Protection

Encl: (1) Refresher Training Program Tables for Deck Officers
(2) Refresher Training Program Tables for Engineering Officers

C:e New Orleans (90); Hampton Roads (50); Baltimore (45); San Francisco (40); Philadelphia, Port Arthur, Honolulu, Puget Sound (35); Miami, Houston, Mobile, Morgan City, Los Angeles/Long Beach (25); Jacksonville, Portland OR, Boston, Portland ME, Charleston, Galveston, Anchorage, Cleveland, Louisville, Memphis, Paducah, Pittsburgh, St. Louis, San Juan, Savannah, Tampa, Chicago, Buffalo, Detroit, Duluth, Milwaukee, San Diego, Juneau, Valdez, Providence, Huntington, Wilmington, Corpus Christi, Toledo, Guam (20).

C:m New York (70); (5); Sturgeon Bay (4).

D:d Except Baltimore, Monterey, Moriches.

D:l CG Liaison Officer MILSEALIFTCOMD (Code N-7CG), CG Liaison Officer RSPA (DHM-22), CG Liaison Officer MARAD (MAR-720.2).

NOAA Fleet Inspection Officer (1).

TABLE 1

Refresher Training Program for Deck Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time *	Methods of Assessment
Bridge Teamwork Procedures/Bridge Resource Management	To refresh the candidate's understanding of the principles of bridge resource management as outlined in section B-VIII/2, paragraph 5 of the STCW Code.	Candidate properly applies BRM principles in a variety of scenarios, including: increasing traffic density, diminishing visibility, handing over the watch, embarking a pilot, and on being informed of failure of vital system (e.g., steering, propulsion, etc.)	15 hours (may be adjusted when candidate is trained by means of a full mission simulator.) Recommended equivalence: 1. 4 hour full-mission simulator exercise(s).	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc Carrying out calculations to solve numerical problems Completion of an approved correspondence course
Keeping a navigational watch	To refresh the candidate's understanding of the principles of keeping a safe navigational watch as prescribed in section A-VIII/2 of the STCW Code.	Candidate's decisions are consistent with recognized standard practices under a variety of circumstances, including those requiring recognition of lights, shapes and sound signals under COLREGS, use of information from radar/ARPA, use of ship-to-ship radio-communications, use of GPS/DGPS, and use of maneuvering signals.	15 hours (may be adjusted when candidate is trained by means of a full mission simulator.) Recommended equivalence: 1. 4 hour full-mission simulator exercise 2. 8 hour part-task radar/ARPA and/or PC-based simulator exercise(s).	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course

* The time frames in this column are preliminary estimates of the time needed to provide instruction and establish that students have achieved course objectives. These times may be adjusted up or down by the NMC on the basis of course entry requirements, delivery methods, and specific performance standards and measures employed in the training program.

TABLE 1

Refresher Training Program for Deck Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time	Methods of Assessment
Rest requirements/work hours	To ensure the candidate retains an understanding of the national and international regulations concerning minimum rest for watchkeeping personnel, and maximum work hours for crew members.	Candidate's ability to organize own work and that of supervised personnel reflects a practical understanding of shipboard work hour and rest restrictions and the conditions when adjustments may be required.	1 hour	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The oral or written description of shipboard procedures or activities Completion of an approved correspondence course
Shipboard instruction & assessment	To ensure the candidate retains the ability to organize shipboard drills and training exercises and can properly evaluate the performance of each crew member during such training activities and introduce improvements.	Candidate assesses performance based on predetermined criteria and close observation, and properly identifies areas in need of improvement.	2 hours	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Completion of an approved correspondence course
Distress at sea	To refresh the candidate's understanding of the responsibilities for responding to persons in distress at sea and how to make effective use of radio communications equipment and procedures in emergency situations.	Candidate properly identifies the developing emergency situation, follows contingency plans and makes effective use of radio communications equipment and procedures in promptly responding.	2 hours	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc Carrying out calculations to solve numerical problems Completion of an approved correspondence course

TABLE 1

Refresher Training Program for Deck Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time	Methods of Assessment
New Technology	To ensure the candidate is made aware of recent technological developments which may affect performance of shipboard tasks, duties and responsibilities.	Candidate identifies the capabilities, limitations, and changes in procedure associated with new types of navigational systems and instrumentation, and is familiar with alarm systems and testing procedures which are used to indicate/verify the reliability of automated equipment.	3 hours ** may be incorporated by reference into previous training elements*	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course
National & International Law	To ensure the candidate understands recent changes in national and international law pertaining to ship operations, maritime safety, and pollution prevention, that might affect performance of shipboard tasks, duties and responsibilities.	Candidate describes changes in laws/regulations which directly affect shipboard responsibilities and identifies circumstances which indicate a state on non-compliance.	2 hours ** may be incorporated by reference into previous training elements*	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Completion of an approved correspondence course

TABLE 1a

Refresher Training Program for Deck Officers

Subject Matter	Allocated Time/Case 1	Allocated Time/Case 2	Allocated Time/Case 3
Bridge Teamwork Procedures/Bridge Resource Management	15 hours Without full-mission simulation	4 hours Full-mission simulation	4 or 15 hours With or without full-mission simulation
Keeping a navigational watch	15 hours Without full-mission or part task simulation	4 hours Full-mission simulation	8 hours Part task simulation
Rest requirements/work hours	1 hour	1 hour	1 hour
Shipboard instruction & assessment	2 hours	2 hours	2 hours
Distress at sea	2 hours	2 hours	2 hours
New Technology	3 hours	3 hours	3 hours
National & International Law	2 hours	2 hours	2 hours
Case Totals	40 hours	18 hours	22 hours/ 33 hours

TABLE 2
Refresher Training Program for Engineering Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time	Methods of Assessment
Keeping an engineering watch	To refresh the candidate's understanding of the principles of keeping an engineering watch as prescribed in section A-VIII/2 of the STCW Code.	Candidate's decisions are consistent with recognized standard practices under a variety of circumstances, including those requiring equipment and systems to be monitored, records to be maintained, and the watch to be handed over.	15 hours (may be adjusted when candidate is trained by means of an engineering full mission simulator.) Recommended equivalence: 1. 4 hour engineering full-mission simulator exercise(s).	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or engineering full-mission simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course
Coordination with bridge	To refresh the candidate's understanding of practices and procedures which best ensure close coordination between the bridge and engine-room.	Candidate properly communicates with bridge in a variety of scenarios, including: steering failure, loss of propulsion power, and emergency stopping.	15 hours (may be adjusted when candidate is trained by means of an engineering full mission simulator.) Recommended equivalence: 1. 4 hour engineering full-mission simulator exercise 2. 8 hour engineering part-task and/or PC-based simulator exercise(s).	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or engineering full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course

* The time frames in this column are preliminary estimates of the time needed to provide instruction and establish that students have achieved course objectives. These times may be adjusted up or down by the NMC on the basis of course entry requirement, delivery methods, and specific performance standards and measures employed in the training program.

TABLE 2

Refresher Training Program for Engineering Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time	Methods of Assessment
Rest requirements and work hours	To ensure the candidate retains an understanding of the national and international regulations concerning minimum rest for watchkeeping personnel, and maximum work hours for crew members.	Candidate's ability to organize own work and that of supervised personnel reflects a practical understanding of shipboard work hour and rest restrictions and the conditions when adjustments may be required.	1 hour	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The oral or written description of shipboard procedures or activities Completion of an approved correspondence course
Shipboard instruction and assessment	To ensure the candidate retains the ability to organize shipboard drills and training exercises and can properly evaluate the performance of each crew member during such training activities and introduce improvements.	Candidate assesses performance based on predetermined criteria and close observation, and properly identifies areas in need of improvement.	2 hours	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Completion of an approved correspondence course
New Technology	To ensure the candidate is made aware of recent technological developments which may affect performance of shipboard tasks, duties and responsibilities.	Candidate identifies the capabilities, limitations, and changes in procedure associated with new types of propulsion systems, other engineering systems, and instrumentation. Candidate is familiar with alarm systems and testing procedures which are used to indicate/verify the reliability of automated equipment.	3 hours * *may be incorporated by reference into previous training elements*	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course

TABLE 2

Refresher Training Program for Engineering Officers

Subject Matter	Training Objectives	Assessment Criteria	Allocated Time	Methods of Assessment
Distress at sea	To refresh the candidate's understanding of the responsibilities for responding to persons in distress at sea and how to make effective use of radio communications equipment and procedures in emergency situations.	Candidate properly identifies the developing emergency situation, follows contingency plans and makes effective use of radio communications equipment and procedures in promptly responding.	2 hours	Direct observation/participation in approved classroom training The recall of facts or information, by oral response or objective tests The practical demonstration of skill making use of appropriate equipment, tools, or full-mission and/or part-task simulation The oral or written description of shipboard procedures or activities Rendering mechanical drawings, diagrams or technical sketches of vessel components and/or systems The identification and use of data from diagrams, drawings, publications, charts, tables, etc. Carrying out calculations to solve numerical problems Completion of an approved correspondence course

TABLE 2a

Refresher Training Program for Engineering Officers

Subject Matter	Allocated Time/Case 1	Allocated Time/Case 2	Allocated Time/Case 3
Keeping an engineering watch	15 hours Without engineering full-mission simulation	4 hours Engineering full-mission simulation	4 or 15 hours With or without engineering full-mission simulation
Coordination with bridge	15 hours Without engineering full-mission or part task simulation	4 hours Engineering full-mission simulation	8 hours Engineering part task simulation
Rest requirements and work hours	1 hour	1 hour	1 hour
Shipboard instruction and assessment	2 hours	2 hours	2 hours
New Technology	3 hours	3 hours	3 hours
National and international law	2 hours	2 hours	2 hours
Case Totals	38 hours	16 hours	20 hours/ 31 hours
Distress at sea	2 hours	2 hours	2 hours
Case Totals with Distress at sea	40 hours	18 hours	22 hours/ 33 hours