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NVIC 1-99
11 JAN 99

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 Regulation (CFR), Section 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, 1978, as amended in 1995 (STCW) for service on or after February 1, 2002, on seagoing ships of 200 gross 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 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). Other requirements (e.g., radar endorsement) may also apply to those renewing a U.S. license or document.

DISTRIBUTION – SDL No.135

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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);
 - (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:

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NMC-4B
4200 Wilson Boulevard, Suite 510
Arlington, VA 22203-1804
Telephone Number: 703-235-0002
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- 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 Center's 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).

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).

STCW-95 QUALIFICATION PROCEDURES FOR
ENGINEERING OFFICERS

1. REQUIRED TRAINING. Any engineering officer who was licensed before 1 February 2002 based on service or training that began prior to 1 August 1998 and who does not meet the STCW-95 gap closing requirements prior to 1 February 2002, must complete the approved or accepted training specified below:

a. Basic safety training comprising the four elements of elementary first aid, fire prevention and firefighting, personal survival techniques, and personal safety and social responsibilities; and

b. Proficiency in survival craft (PSC) unless certificated as an able seaman or lifeboatman. PSC may be attained through in-service training and assessment of skills or through in-service training and completion of a course.

2. REFRESHER COURSE – ASSISTANT ENGINEER (A/E) - THIRD A/E - SECOND A/E. An A/E, Third /AE, or Second A/E (officer in charge of a engineering watch) must attend an approved or accepted refresher course. The course must have the capability to assess an engineer's competency in engineering watchstanding procedures and the operation of main and auxiliary machinery, and associated control systems.

a. The course's offeror must pre-test the mariner to determine if the mariner is competent in the following areas:

(1) Main Engine start-up, operation and securing (Steam Turbine/Boilers, Motor or Gas Turbine, as appropriate for the candidate's propulsion mode);

(2) Electrical Systems operation (Starting, monitoring and paralleling Auxiliary and Emergency generators);

(3) Auxiliary Systems (Purifiers, Evaporators, Pumps/Pumping Systems, Oily Water Separator, Marine Sanitation Device, Auxiliary Boilers); and

(4) Principles to be observed in keeping an engineering watch, including emergency procedures.

Failure to attain at least a minimum score of 70% in each area will require additional refresher training in the area(s) in which the failure(s) occurred until the mariner can demonstrate competence in those areas.

b. The refresher course will also include formal training, focusing on new developments, in the following areas:

(1) Basic ship's construction, stability, and trim;

(2) Modern Main and Auxiliary engine types and control systems;

- (3) Pollution prevention regulations and procedures; and
- (4) Following safe working practices.

The formal training must ensure that the mariner can meet the competency standards for an officer in charge of an engineering watch.

3. REFRESHER TRAINING – CHIEF ENGINEER/ FIRST A/E. A Chief Engineer or First A/E (second engineer officer) must complete the training and pre-assessments required for an engineer at the operational level and, in addition, attend a refresher course for a certification as a chief engineer or first A/E, whichever is appropriate.

a. The course's offeror will conduct a pre-test of the Chief Engineer - First A/E in the following areas to determine competency in:

- (1) Main Engine start-up, maneuvering, evaluation of performance, maintenance, and repair (Steam Turbine/Boilers, Motor, or Gas Turbine, as appropriate for the candidate's propulsion mode);
- (2) Electrical and Electronic Systems operation, testing, fault finding, , maintenance, and repair; and
- (3) Safe working practices.

Failure to attain at least a minimum score of 70% in each of the above areas will require formal training in the area(s) in which the failure(s) occurred until the mariner is able to meet the minimum standards of competency.

b. The refresher course will also include training, focusing on new developments, in the following areas:

- (1) Main Propulsion machinery types, operating principles, and characteristics; Combination propulsion and electrical service systems; Lubrication principles and technology;
- (2) Machinery control systems (electronic, pneumatic, and hydraulic);
- (3) Ship's construction, stability and trim; Damage Control; and
- (4) Legislative requirements including the Code of Federal Regulations (CFR), the United States Code (U.S.C.), the International Convention for Safety of Life at Sea (SOLAS), the International Safety Management Code (ISM), the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), The International Convention for the Prevention of Pollution from Ships (MARPOL), and the Oil Pollution Act of 1990 (OPA 90.)

- (5) Engine Room Management

4. The following training is optional depending upon the type of vessel the mariner will serve:

- a. Tankerman (Engineer or PIC –DL / LG): The candidate must have completed an approved Tankerman (PIC) course within the previous five years to be eligible to receive this endorsement and serve on a tank vessel.
- b. Passenger vessel training (STCW Article V/2 or V/3): The candidate must have completed an approved course within the previous five years to be eligible to receive this endorsement and serve on a passenger vessel.