



**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MERCHANT SHIPPING SECRETARIAT**  
**MINISTRY OF PORTS AND SHIPPING**

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## **Mandatory Minimum Requirements for Training in Advanced Firefighting**

Effective Date 31st December 2017

### **Introduction**

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.

Where training in advanced firefighting 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 firefighting.

All training institutes should adhere to applicable regulations and required to make assessments of any potential risks to the health and safety of staff and trainees that may be associated with their activities. They are also required to identify, implement, monitor and review effective measures for minimizing and controlling them. In addition, institutes will be required to make effective arrangements for dealing with any emergency, incident or accident that may occur during the course of training. It is recommended for all training institute to have an Insurance policy cover personal injuries.

### **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.

5. Seafarers qualified in accordance with paragraph 4 in advanced firefighting 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.

### **Course approval and Conducting Procedure**

1. Entry criteria for the respective courses given in the code of practice.
2. Core syllabus will be given by the Director General of Merchant shipping (DGMS).
3. Detailed syllabus, lesson plan lecture notes and student hand out should be prepared according to the core syllabus by the requested institute.
4. Relevant table of the STCW code should be complied and IMO model course to be used for your assistance (if available).
5. The teaching methods, required practical and way of transferring the appropriate knowledge to the students should be demonstrated by attending officer of the training institute at the time course approval.
6. Inspection will be carried out to check the college facilities and equipment's for the particular course.
7. Lectures, instructor's qualifications for particular course were published in the MSN notice.
8. The training institutes must get the individual course approval from Director General of Merchant Shipping and if there are any later changes (e.g. in facilities, equipment, staff) should notify to DGMS immediately if that affect the conduct of the training and/or assessment.
9. The Director General of Merchant shipping must be kept informed of the dates, timing and venue of training programmes so that the examiners can monitor the training at their convenience.
10. Certificates shall be issued only to those trainees who successfully complete the training programme and meet other requirements for the issue of the certificate.
11. Full records of all certificates issued to trainees must be up load to the website and records to be retained by the institute in such a way that authenticity or confirmation of issue of a certificate can be verified at a later stage if necessary.
12. 100% attendance is required for successful completion of the course and if anyone goes below should be notified.
13. Minimum time duration for each course given in the core syllabus.
14. Assessment to be carried out at the end of the course.

#### **Training Plan**

The training may be delivered as an integral part of a broader programme for candidates for first certificates

of competency as deck and/or engineer officer. In order to ensure that each candidate undertakes the necessary practical work, at least 12 hours must be devoted to the practical exercises and demonstrations. Alternatively, training may be provided as a full-time block course, normally of 30 hours.

Where an entity wishes to offer combined training in Fire Prevention and Fire Fighting and Advanced Fire Fighting, the criteria for approval of training in Fire Prevention and Fire Fighting as well as the criteria for approval of training in Advanced Fire Fighting specified in this document must be observed. However, taking account of the overlap between basic and advanced training, notably the element of revision and updating in the guidelines for advanced training, the requirements of sections A-VI/1-2 and A-VI/3 of the STCW Code may be met for experienced seafarers

### **Finalized minimum requirement of equipment's and teaching aids**

#### Fire stimulator

IMO model course may assist to get the size and dimensions.

Shower to be located.

#### Refilling of extinguishers

- Each institute to consist of a facility for refilling of extinguishers.
- Compressor used should contain a air quality test certificate-institutes which does not have a compressor facility should refill by a recognized refilling company and each cylinder to carry a tested certificate. The air quality of these companies also needs to be tested for air quality test certificate.

#### Fire ignition points for firefighting practical's

Existing fire trays sizes are accepted. But colleges building new fire ignition points to maintain below mentioned dimensions.

- 01 number steel fire tray-inside the fire stimulator. 1m x 1m
- 01 number brick/ concrete fire tray- 1m x 1m
- 01 number steel fire tray -1m x 1m
- Mediums used for ignition should be wooden, diesel, oil tray-toxicity of the smoke generated must be considered.

#### EEBD – demonstrations in classroom

- 02 numbers of fire hydrants-minimum of 3 bars pressure to be maintained in the fire lines, regular test reports of the pressure to be maintained by the institutes.
- Gauges used for all the testing of pressure must be calibrated and certificates of calibrations to be available.
- 02 numbers of dummies- 1. weight minimum 60 kgs.  
2. standard weight 82.5 kgs
- 01 numbers of a facility to generate smoke.

## Fire hose

- For fire hydrant- size 65mm 06 numbers or size 38mm 06 numbers.
- For connections one type is accepted. Other types to be elaborated using videos.
- 01 number for practical purpose using a fire hydrant
- 01 number coupling type-demonstration purpose only.

06 brunch pipe

06 numbers of dual purpose fire nozzles(fog/spray)

02 number of mechanical form brunch

02 numbers of fully equipped fire boxes practical use - 01 hose reel,01 nozzle, 01 tool

High expansion form to be demonstrated using videos

Medium expansion form- minimum 2L capacity to be used for practical purpose.

Detectors- one of each type to be kept in classroom- uses to be demonstrated using a video.

Use of stand pipe- colleges to get back to the DGMS officials on the current stand pipe used.

Use of extinguishers during practical's

Each student to have hands on experience with extinguishing fires using all 4 types

- 1 number of 9L water extinguisher can be used by 03 students
- 1 number of 9L form extinguisher can be used by 03 students
- 1 number of CO2 extinguisher can be used by 05 students
- 1 number of 6kg dry powder extinguisher can be used by 05 students
- Refilling of extinguishers-demonstrations to be done
- Refills of the extinguishers is determined by the above mentioned ratios.
- If approval is taken for 20 students requirements of the equipments needs to fulfill for the 20 students.
- Protective clothing-PPE for each person involved in the practical's compulsory - overall, helmet safety shoes
- BA complete set- 01 number for instructor } total minimum 07  
-minimum 06 number } numbers -full set
- Each BA set to comprise of 01 spare cylinder- 07 numbers minimum to be maintained.
- 07 numbers of Distress units(DSU)
- 01 number of a appropriately equipped first aid kits suitable for treating burns, smoke inhalation, bone fractures, - examples of such items include

- Eye wash
  - 02 numbers of paraffin gauze
  - 03 numbers of saline bottles
  - Bandages- triangular and various types
  - Burn gel
  - Antibiotic cream
  - Stretcher
  - Resuscitator
- Fire man outfit- complete set.
    - 01 for instructor
    - 10 students can use 01 number of a complete outfit.
    - 20 students can use 02 number of a complete outfit.
    - 30 students can use 03 number of a complete outfit.
  - Safety line to be demonstrated in the classroom
  - 01 number of international shore connector- for demonstration purpose only
  - Posters indicating fire symbols to be displayed in classroom

### Videos

IMO model course may assist as a guideline for selecting of videos and quality/standard up to the Maritime administration standards.

Essential content to be included in the videos are-

- Fire prevention
- Basic fire fighting
- Fire safety operations
- Safe air to breath
- Fire fighting in enclosed spaces
- As per model course V1-V7

### IMO references

- IMO model course may assist as a guideline for selecting the IMO references.
- Latest STCW code
- SOLAS.
- Relevant IMO guidelines and resolutions.

### Text books

- IMO model course may assist as a guideline for selecting textbooks.