



Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION

CHED MEMORANDUM ORDER (CMO)

No. 10;
Series of 1999.

SUBJECT: AMENDMENTS TO CMO. 51, S. 1997 AND CMO 38, S. 1998
(POLICIES, STANDARDS AND GUIDELINES FOR MARITIME
EDUCATION).

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In accordance with the pertinent provisions of Republic Act (R.A.) No. 7722, otherwise known as the "Higher Education Act of 1994", and by virtue of Resolution No. 010-99 of the Commission en banc dated 15 February 1999, and in view of strictly monitoring the performance of maritime education programs in the country relative to compliance with the policies, standards and guidelines (PSG) for maritime education and the Standards of Training, Certification and Watchkeeping (STCW) '95 requirements, the following amendments to CMOs 51, s. 1997 and 38, s. 1998, entitled "Policies, Standards and Guidelines for Maritime Education" are hereby adopted and promulgated by the Commission, thus:

1. Provisions on Administration particularly Sections 6.2.2 & 6.3.2 of CMO 38, s. 1998, (the minimum teaching experience was reduced from 4 years/6 years to 2 years) shall henceforth read as:

"at least two (2) years teaching experience".
2. Provisions on Faculty particularly:
 - 2.1. Section 7 of CMO 51, s. 1997 shall henceforth be implemented by the year 2001;
 - 2.2. Section 9.3 of CMO 51, s. 1997 shall be deleted;
 - 2.3. Section 11 of CMO 51, s. 1997 shall also conform with the requirements of the Manual of Regulations for Private Schools of not more than eight (8) hours work a day devoted to the school.
3. Provisions on Physical Facilities particularly Section 22 of CMO 51, s. 1997 shall henceforth read as:

"The standard classroom shall be a minimum of 30 square meters for a class of 25 students and 56 square meters for a class of 50 students. Classrooms must be well-lighted, blackboards/whiteboards, etc."
4. Provisions on Laboratory Training Equipment particularly Section 25 - Annex II-A of CMO 38, s. 1998 shall henceforth read as follows:

ANNEX II-A

STANDARDS GOVERNING THE USE OF SIMULATORS

A. *General performance standards for simulators used in training*

Any simulator used for simulator-based training shall:

- 1 be suitable for the selected objectives and training tasks;*
- 2 be capable of simulating the operating capabilities of shipboard equipment concerned, to a level of physical realism appropriate to training objectives, and include the capabilities, limitations and possible errors of such equipment;*
- 3 have sufficient behavioral realism to allow a trainee to acquire the skills appropriate to the training objectives;*
- 4 provide a controlled operating environment, capable of producing a variety of conditions which may include emergency, hazardous or unusual situations relevant to the training objectives;*
- 5 provide an interface through which a trainee can interact with the equipment, the simulated environment and, as appropriate, the instructor; and*
- 6 permit an instructor to control, monitor and record exercises for the effective debriefing of trainees.*

B. *Additional performance standards for specific type of simulators*

1 Radar Simulation

Radar simulation equipment shall be capable of simulating the operational capabilities of navigational radar equipment which meets all applicable performance standards adopted by the IMO (Resolutions A.222(VII), A.278(VII), and A.477(XII)) and incorporate facilities to:

- 1.1 operate in the stabilized relative motion mode and sea and ground stabilized true motion modes;*
- 1.2 model weather, tidal streams, current, shadow sectors, spurious echoes and other propagation effects, and generate coastlines, navigational buoys and search and rescue transponders; and*
- 1.3 create real-time operating environment incorporating at least two own-ship stations with ability to change own ship's course and speed, and include parameters for at least 20 target ships and appropriate communication facilities.*

2 Automatic Radar Plotting Aid (ARPA) Simulation

ARPA simulation equipment shall be capable of simulating the operational capabilities of ARPAs which meets all applicable performance standards adopted by the IMO (Resolutions A.422(XI) and A.823(19)) and shall incorporate the facilities for:

- 2.1 manual and automatic target acquisition;
- 2.2 past track information;
- 2.3 use of exclusion areas;
- 2.4 vector/graphic time-scale and data display; and
- 2.5 trial manoeuvres.

C. Recommended training procedures

In conducting simulator-based training, instructors shall ensure that:

1. trainees are adequately briefed beforehand on the exercise objectives and tasks and are given sufficient planning time before the exercise starts;
2. trainees have adequate familiarization time on the simulator and with its equipment before any training or assessment exercise commences;
3. guidance given and exercise stimuli are appropriate to the selected exercise objectives and tasks and to the level of trainee experience;
4. exercises are effectively monitored, supported as appropriate by audio and visual observation of trainee activity and pre-and post-exercise evaluation reports;
5. trainees are effectively debriefed to ensure that training objectives have been met and that operational skills demonstrated are of an acceptable standard;
6. the use of peer assessment during debriefing is encouraged; and
7. simulator exercises are designed and tested so as to ensure their suitability for the specified training objectives

D. Recommended assessment procedures

1. performance criteria are identified clearly and explicitly and are valid and available to the candidates;
2. assessment criteria are established clearly and are explicit to ensure reliability and uniformity of assessment and to optimize objective measurement and evaluation, so that subjective judgement are kept to the minimum;
3. candidates are briefed clearly on the task and/or skills to be assessed and on the tasks and performance criteria by which their competency will be determined;

4. assessment of performance takes into account normal operating procedures and any behavioral interaction with other candidates on the simulator or simulator staff;
5. scoring or grading methods to assess performance are used with caution until they have been validated ; and
6. the prime criterion is that a candidate demonstrates the ability to carry out a task safely and effectively to the satisfaction of the assessor

E. Qualification of instructors and assessors

The Institute shall ensure that instructors and assessors are appropriately qualified and experienced for the particular types and levels of training and competence.

5. Provisions on Library particularly Section 38 of CMO 51, s. 1997 shall henceforth read as follows:

"Section 28.4. - Magazines and Publications - Subscriptions to at least three (3) professional/international publications current to the year;
Section 28.6. - Ten (10%) percent of the library holdings must be of current editions."
6. Provisions on Shipboard Training under Section 31B - Annex IV of CMO 38, s. 1998, particularly, the one (1) year shipboard training of cadets - may be carried out in a Modular Type cumulative to one year, provided that the tasks enumerated in ISF training record book are performed.

Pasig City, Philippines March 8, 1999

For the Commission:


ANGEL C. ALCALA
Chairman 