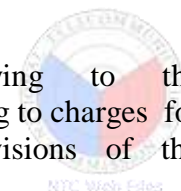


MEMORANDUM CIRCULAR
Number 6-6-98

SUBJECT: GUIDELINES IN THE ISSUANCE OF A RADIO ELECTRONIC CERTIFICATE (REC)

Pursuant to Act No. 3846, as amended, Executive Order No. 546, the provisions of Section IV-2, STCW Convention of 1995 and Section IIIA, Chapter NIX of Article 55 of the International Telecommunication Union (ITU) Radio Regulations that provides for Certificates, the National Telecommunications Commission (NTC) hereby promulgates the following guidelines for the training, qualification, examination and the issuance of a Radio Electronic Certificate (REC).

1. A Radio Electronic Certificate holder shall have passed the required NTC examination and have shown knowledge and professional competence and qualification in the following aspects:
 - 1.1 Knowledge of the principles of electricity and the theory of radio and electronics sufficient to meet the requirements specified in ITU Radio Regulation, Article 55, Section IIIA;
 - 1.2 Theoretical knowledge of GMDSS radiocommunication equipment, including narrow-band direct-printing telegraph and radiotelephone transmitters and receivers, digital selective calling equipment, ship earth stations, emergency position-indicating radiobeacons, marine antenna systems, radio equipment for survival craft together with all auxiliary items, including power supplies, as well as general knowledge of the principles of other equipment generally used for radionavigation, with particular reference to maintaining the equipment in service;
 - 1.3 Practical knowledge of the operation and knowledge of the preventive maintenance of the equipment specified under item No. V-2;
 - 1.4 Practical knowledge necessary for the location and repair (using appropriate testing equipment and tools) of faults in the equipment mentioned in item No. V-2 which may occur during a voyage;
 - 1.5 Detailed practical knowledge of the operation of all GMDSS sub-systems and equipment;
 - 1.6 Ability to send and receive correctly by radiotelephone and direct-printing telegraphy;
 - 1.7 Detailed knowledge of the regulations applying to the radiocommunications, knowledge of the documents relating to charges for radiocommunications and knowledge of those provisions of the



International Convention for the Safety of Life at Sea which relate to radio;

- 1.8 Sufficient knowledge of one of the working languages of the Union, Candidates should be able to express themselves satisfactorily in that language, both orally and in writing.

2. General Qualifications of the Applicant

An applicant for Radio Electronic Certificate shall possess the following qualifications to be able to take the REC examination.

- 2.1 He must be a Filipino citizen.
- 2.2 He must be at least 21 years old.
- 2.3 He must be of good moral character.
- 2.4 He must have attended the prescribed training course on REC offered by a duly accredited radio training center.
- 2.5 He must be a holder of a valid First Class Radiotelegraph Operator Certificate and General Operator Certificate.
- 2.6 If a graduate of BSECE or licensed ECE, he must have at least one (1) year experience on board a commercial vessel or training ship either as an electrician, electronic engineer, or radio electronic trainee and a holder of a training certificate on Radiotelephony – GMDSS, Inmarsat and Radio Electronic Course.

3. Examination Elements – Written examination shall comprise questions from one or more of the following elements:

- 3.1 Element 1 (Basic Electronics) - Basic theory applicable to understanding electronic components and parts.
- 3.2 Element 2 (Electronic Devices) – Theory and practice on electronic devices, rectifiers, amplifiers and oscillators.
- 3.3 Element 3 (Electronics Communication and Digital Electronics) –Theory on Amplitude and Frequency Modulation, receivers, transmitters, wave propagation and antennas.
- 3.4 Element 4 (Computers and Maintenance of GMDSS and Electronic Navigational Devices) – Theory and practice on computers and standards on the maintenance of GMDSS and electronic navigational aids.

4. Examination Requirements – An applicant for a Radio Electronic Certificate is required to pass the elements as follows:

- 4.1 First Class Radio Electronic Certificate
(Elements 1, 2, 3 and 4)



4.2 Second Class Radio Electronic Certificate
(Element 1, 2 and 3)

5. Passing Grade – A passing average of 70% of a possible 100% is required on all elements of written examinations, provided, that no rating shall be below 50 % in any element. An applicant who fails in the examination for the class of license applied for maybe granted a license of a lower class if he obtains a general average of at least 70% on the elements required for that lower class.

An applicant who passed in an examination, but fails to secure a license within one (1) year from date he is advised of the result of his or her examination., will not be issued a license without examination.

6. Fees

- 6.1. The following shall be charged by the Commission.

6.1.1. Examination fee	P 50.00
6.1.2 Certification Fee per year	150.00
6.1.3. Duplicate fee	100.00

All applicants shall adhere strictly to the provisions of the herein prescribed guidelines and any misrepresentation made by an applicant shall be grounds for the revocation or suspension of the certificate issued.

This Circular takes effect immediately and supersedes any existing NTC order, circular, instruction or memorandum or part thereof which is inconsistent herewith.

Quezon City, Philippines 24 June 1998

FIDELO Q. DUMLAO
Acting Commissioner

