



Maritime and Coastguard Agency

MGN 93 (M)

TRAINING AND CERTIFICATION GUIDANCE - PART 3

Certificates of Competency - Engine Department

Notice to Owners, Masters, Engineer Officers and Ratings of Merchant Vessels and those concerned with Maritime Training

This Note supersedes Marine Guidance Note MGN 3(M) and should be read in conjunction with Merchant Shipping Notice No MSN 1692(M) (or subsequent amendments) and MSN 1740 (M)

Summary

This Marine Guidance Note (MGN) is part of a series which gives guidance regarding the application of the Merchant Shipping (Training and Certification) Regulations 1997¹.

In order for the guidance to be easy to use and to keep up-to-date, the individual Parts will retain the same Part number but the MGN number may change if and when revisions are necessary. The front sheet of any revised Part will list the latest MGN numbers. Any reference to "Part" in this Note relates to this series of Guidance Notes as listed below.

Key Point

This Part gives information and guidance regarding the certification structure and requirements for **engineer officers and engine-room watch ratings**. It is additional to the general guidance given in Part 1 and is particular to the **engine department**. Information on the requirements for Marine Engine Operator licences is also included in this Part.

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¹ SI 1997/348 as amended by SI 1997/1911

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15	Certification of inshore tug personnel	MGN 117 (M)	April 2000
16	Certification of inshore craft personnel (other than tugs)	MGN 126 (M)	Not yet issued

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All references to “Parts” in this document are to other Parts of this series of Training and Certification Guidance Notes

1.0 Introduction

- 1.1 The Merchant Shipping (Training and Certification) Regulations 1997 (the Regulations) implement in the United Kingdom some of the requirements of the International Convention on Standards of Training, Certification and Watchkeeping 1978, as amended in 1995 (STCW 95)² and its associated Code (STCW Code), and prescribe mandatory minimum requirements for the certification of engineer officers and engine-room watch ratings.
- 1.2 Candidates for UK certificates of competency have to meet certain medical standards (including eyesight); satisfactorily complete the minimum period of seagoing service; reach the required vocational and academic standard; undertake ancillary technical training, and in the case of officer candidates, on completion of programmes of education and training approved by the Maritime and Coastguard Agency (MCA), pass an oral examination conducted by an MCA examiner.
- 1.3 Examinations are divided into academic and professional subjects as described in Part 8. The professional subject examinations and the MCA oral examination **MUST** be passed within a 3 year period prior to the date of issue of a certificate of competency. Successes in the academic written examinations remain valid indefinitely.

2.0 Certificate Structure

- 2.1 The Regulations provide for the certification of engine department personnel as shown below in Table 1. However, additional flexibility is provided by further limitations and restrictions on certification for specific ship types, propulsion systems or trades, as appropriate.

Table 1

Capacity	Propulsive Power Limitation	STCW 95 Regulation
OOW	unlimited	III/1
Second Engineer	less than 3,000kW unlimited	III/3* III/2
Chief Engineer	less than 3,000kW unlimited	III/3** III/2
Engine-room watch rating	unlimited	III/4

* This certificate will be endorsed for service in vessels up to 6,000kW in the near-coastal area.

** This certificate may be endorsed, if required, for service in vessels up to 6,000kW in the near-coastal area for those with not less than 36 months sea-service.

- 2.2 Engineer officers on ships of below 750 kW are not required to hold certificates of competency. However, Marine Engine Operator Licences (MEOL) and Senior Marine Engine Operator Licences (SMEOL) for ships of between 350 and 750 kW are available, although these do not carry an STCW 95 endorsement (see paragraphs 4 and 5 below).

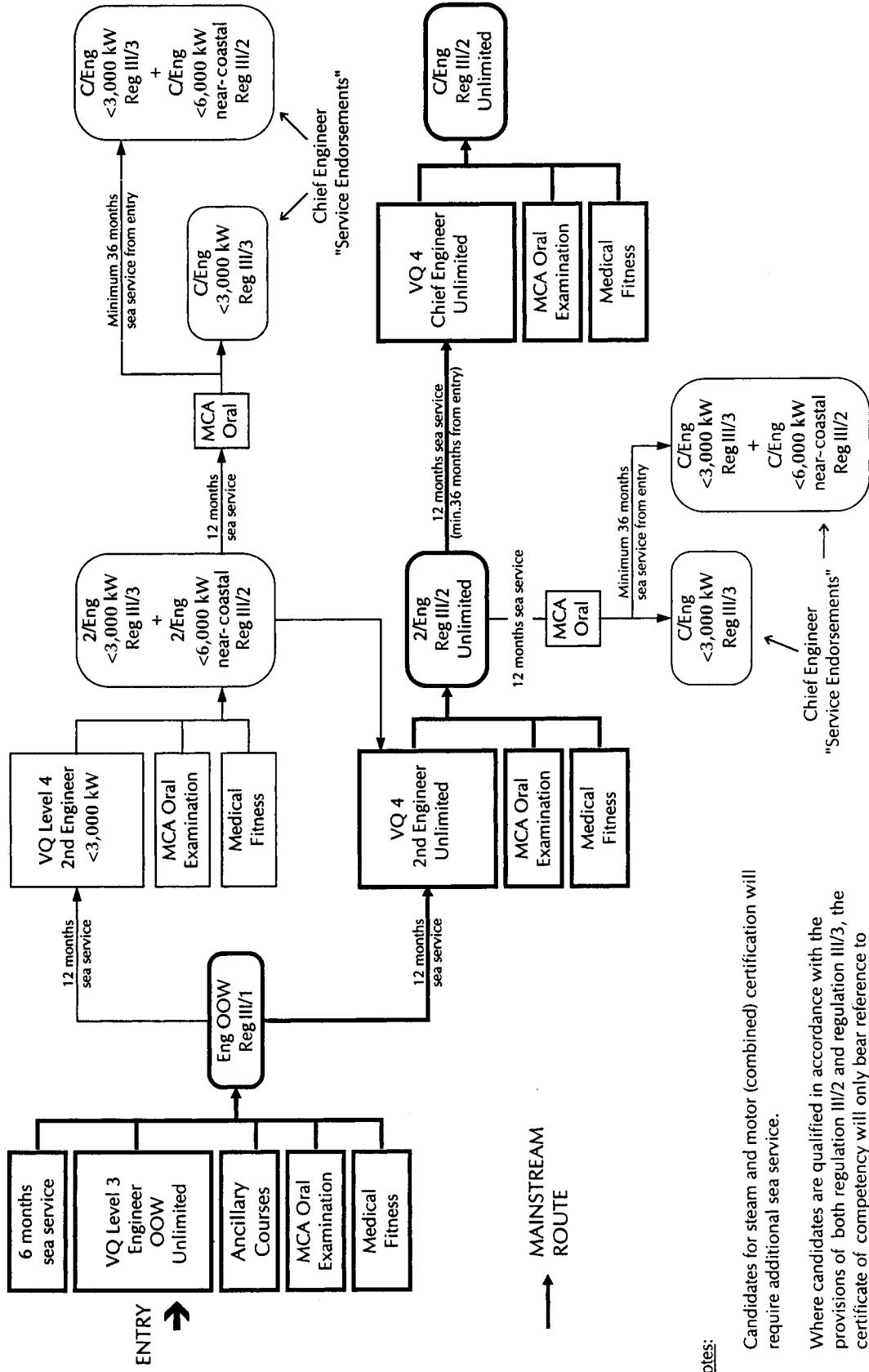
² Available from the Publications Department, The International Maritime Organization, 4 Albert Embankment, London SE1 7SR

- 2.3 There are two routes to gaining the necessary skills and underpinning knowledge required for the issue of a certificate of competency: the Vocational Qualification (VQ) route and a route based on traditional examinations. Where appropriate, both routes can lead to other nationally recognised qualifications, such as a Higher National Diploma (HND) issued by Edexcel (previously BTEC) or the Scottish Qualifications Authority (SQA)³ or a degree.
- 2.4 Under transitional arrangements, additional categories of engineer officer certificates may be issued to ease the transition between the existing standards and those in STCW 95 (see Merchant Shipping Notice MSN 1692(M) or subsequent amendments).
- 2.5 Engineer officers serving on vessels with gas turbine propulsion may hold motor, steam or combined certificates of competency. (Some additional training related to the gas turbine machinery on a particular vessel will also be required for specified senior engineer officers).
- 2.6 Further information on the various requirements for progression to each level of certification is illustrated in Tables 2a and 2b below.

³ With effect from 1 April 1997, the SQA took on the role and responsibilities of the Scottish Vocational and Educational Council (SCOTVEC)

Table 2a

Progression to Engineer Officer Certification by the VQ Route



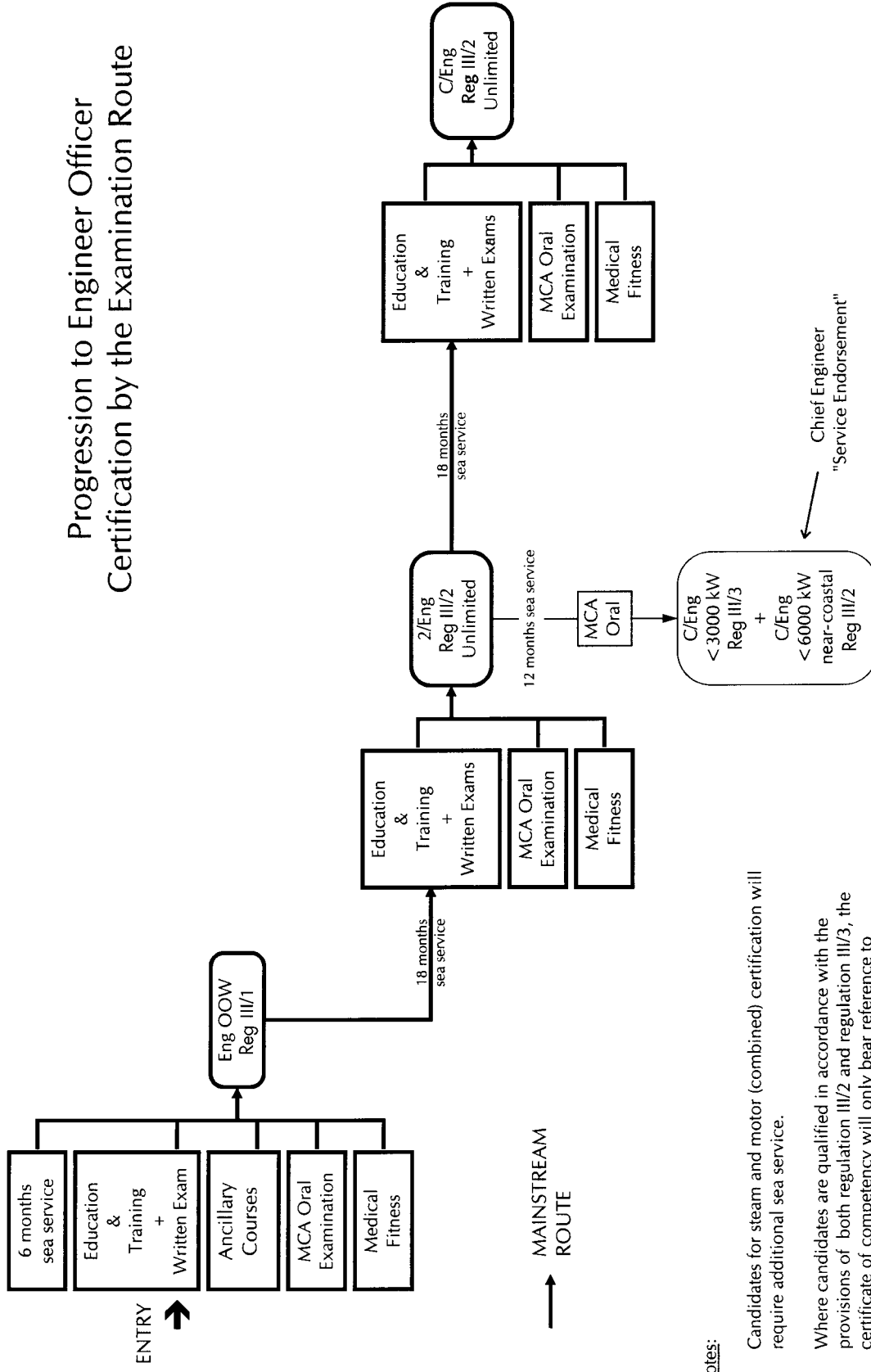
Notes:

- 1 Candidates for steam and motor (combined) certification will require additional sea service.
- 2 Where candidates are qualified in accordance with the provisions of both regulation III/2 and regulation III/3, the certificate of competency will only bear reference to regulation III/2.

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Table 2b

Progression to Engineer Officer Certification by the Examination Route



Notes:

- 1 Candidates for steam and motor (combined) certification will require additional sea service.
- 2 Where candidates are qualified in accordance with the provisions of both regulation III/2 and regulation III/3, the certificate of competency will only bear reference to regulation III/2.

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3.0 Approved Sea Service

3.1 STCW 95 defines seagoing service as time spent on board a ship, relevant to the issue of a certificate or other qualification. The period of sea service required for certification varies with the level of certification and the training programme followed.

3.2 A summary of qualifying sea service requirements for those following the VQ route to engineer officer certificates of competency is given in Table 3 below:

Table 3 Qualifying Sea Service Requirements for Certificates of Competency by the VQ route

STCW 95 Reg III/1 OOW	Minimum watchkeeping on main propulsion machinery or UMS duties (on ships of 350kW or more)	Total minimum sea service
Motor (M)	4 months on motor ships	6 months
Steam (S)	4 months on steam ships	6 months
Combined Steam & Motor (S & M)	8 months (4 steam and 4 motor)	8 months
STCW 95 Reg III/3 2nd Engineer ships less than 3,000 kW	Minimum watchkeeping on main propulsion machinery or UMS duties (on ships of 350kW or more)	Total minimum sea service (with III/1 certificate)
Motor (M)	9 months on motor ships	12 months
Steam (S)	9 months on steam ships	12 months
Combined (S & M)	18 months (9 steam and 9 motor)	18 months
STCW 95 Reg III/2 2nd Engineer Unlimited	Minimum watchkeeping on main propulsion machinery or UMS duties (on ships of 750kW or more)	Total minimum sea service (with III/1 certificate)
Motor (M)	9 months on motor ships	12 months
Steam (S)	9 months on steam ships	12 months
Combined (S & M)	18 months (9 steam and 9 motor)	18 months
STCW 95 Reg III/3 Chief Engineer ships less than 3,000 kW	Minimum sea service while qualified to serve as III/3 2nd Engineer (on ships of 750kW or more)	Total minimum sea service
Motor (M)	12 months (9 months of which in charge of watch or UMS duties on motor ships)	30 months
Steam (S)	12 month (9 months of which in charge of watch or UMS duties on steam ships)	30 months
Combined (S & M)	18 months (9 steam and 9 motor in charge of watch or UMS duties)	30 months
STCW 95 Reg III/2 Chief Engineer Unlimited	Minimum sea service while qualified as III/2 2nd Engineer (on ships of 1,500kW or more)	Total minimum sea service
Motor (M)	12 months (9 months of which in charge of watch or UMS duties on motor ships of 3,000 kW or more)	36 months
Steam (S)	12 months (9 months of which in charge of watch or UMS duties on steam ships of 3,000 kW or more)	36 months
Combined (S & M)	18 months (9 steam and 9 motor in charge of watch or UMS duties on ships of 3,000 kW or more)	36 months

3.3 A summary of qualifying sea service requirements for those following the examination route to engineer officer certificates of competency is given in Table 4 below:

Table 4 Qualifying Sea Service Requirements for Certificates of Competency by the Examination Route

STCW 95 Reg III/1 OOW	Minimum sea service on main propulsion machinery or UMS duties (on ships of 350kW or more)	Total minimum sea service
Motor (M)	6 months (4 months of which on watchkeeping or UMS duties on motor ships)	6 months
Steam (S)	6 months (4 months of which on watchkeeping or UMS duties on steam ships)	6 months
Combined (S&M)	8 months (4 steam and 4 motor on watchkeeping or UMS duties)	8 months
STCW 95 Reg III/2 2nd Engineer Unlimited	Minimum sea service while qualified as III/1 OOW (on ships of 750kW or more)	Total minimum sea service
Motor (M)	18 months (9 months of which in charge of watch or UMS duties on motor ships)	24 months
Steam (S)	18 months (9 months of which in charge of watch or UMS duties on steam ships)	24 months
Combined (S&M)	18 months (9 steam and 9 motor in charge of watch or UMS duties)	26 months
STCW 95 Reg III/2 Chief Engineer Unlimited	Minimum sea service while qualified as III/2 2nd engineer (on ships of 1500kW or more)	Total minimum sea service
Motor (M)	18 months (9 months of which in charge of watch or UMS duties on motor ships of 3,000 kW or more)	42 months
Steam (S)	18 months (9 months of which in charge of watch or UMS duties on steam ships of 3,000 kW or more)	42 months
Combined (S&M)	18 months (9 steam and 9 motor in charge of watch or UMS duties on ships of 3,000kW or more)	44 months

3.4 General Requirements for Qualifying Sea Service

3.4.1 Except where there are particular limitations or where relaxations are specifically allowed, qualifying sea service means service under crew agreement as engineer officer on regular watch, on Unmanned Machinery Spaces (UMS) duties, or on day work and is reckoned from the date of engagement to the date of discharge. At least 6 months of qualifying sea service must have been performed within the 5 years preceding the application.

3.5 Sporadic use of main propelling machinery

- 3.5.1 Service performed in ships where for considerable periods the main propelling machinery is not used, is reckoned as one and a half times the number of days actually spent under way, but in no case can it exceed the time served under a crew agreement. In such cases the testimonials produced in accordance with Part 1 must state the number of days actually spent under way with the main propelling machinery in full use.

3.6 Auxiliary machinery

- 3.6.1 Watchkeeping service on auxiliary machinery will be counted in full towards the overall minimum sea service required. However, such service will not be accepted as counting towards the minimum required to be spent watchkeeping on main propelling machinery.

3.7 Day work

- 3.7.1 Engineering work carried out at sea, other than that performed on regular watch, will be counted in full towards the overall minimum sea service required. However, such service will not be accepted as counting towards the minimum required to be spent in watchkeeping on main propelling machinery.

3.8 Sheltered water service

- 3.8.1 Service in ships operating on lakes or rivers, or within category C and D waters as specified in Merchant Shipping Notice M1504 (as amended by M1569 or any subsequent Notice), may be accepted at half rate. However, an unrestricted certificate of competency will not be issued on the basis of sheltered water service only. Three months sea service will be required before this restriction is lifted.

3.9 Offshore service

- 3.9.1 .1 Service in self-propelled offshore units where the unit is undertaking sea-going passages or well shifts or when it is engaged in maintaining a fixed station by continuous use of the main propelling machinery, will be accepted at full rate.
- .2 Service in self-propelled offshore units where the unit is fixed on station in either the drilling or service mode will be accepted at full rate. Such service will be accepted, up to a maximum of half the minimum required watchkeeping service, as counting towards the minimum required to be spent in watchkeeping or UMS duties on main propelling machinery.
- .3 Service in an offshore unit which is not self-propelled but is termed a ship under the Merchant Shipping Act 1995 will be accepted at half rate. However, such service will not be accepted as counting towards the minimum required to be spent in watchkeeping or UMS duties on main propelling machinery.

3.10 Royal Navy Personnel

- 3.10.1 Sea service performed in Royal Navy ships will be assessed as if it had been performed in merchant ships. Service performed whilst holding a Royal Navy Marine Engineer Officer of the Watch Certificate will be assessed as if it had been performed whilst in possession of a certificate as watchkeeping officer issued in accordance with Regulation III/1 of STCW 95; however, this does not entitle the holder to be issued with such a certificate unless all other requirements are met. Royal Navy candidates for a Second Engineer certificate issued in accordance with Regulation III/2 or III/3 of STCW 95 must perform at least 3 months merchant vessel familiarisation sea service in the engine-room department.

3.11 Fishing Vessel Personnel

3.11.1 Sea service performed on fishing vessels will be assessed on its merits.

3.12 Verification of Service

3.12.1 Entries in a Discharge Book or Certificates of Discharge supported by testimonials will be treated as evidence of sea service. Where there are doubts about the sea service claimed or it cannot be verified as above, it will only be accepted upon written confirmation by some responsible person having personal knowledge of the facts to be established.

3.13 Calculation of Service

3.13.1 Sea service as entered in official documents as in paragraph 3.12 above will be reckoned by the calendar month, that is the time included between any given day in any month and the preceding day of the following month, both inclusive. The number of complete months from the commencement of the period, ascertained in this way, should be computed, after which the number of odd days should be counted. The day on which the crew agreement commenced, as well as that on which it terminated, should both be included, all leave of absence excluded and all odd days added together and reckoned at thirty days to the month.

3.14 Testimonials Required

3.14.1 All applicants for first and subsequent certificates of competency must produce testimonials covering character, standards of behaviour including sobriety, experience and ability on board ship and good conduct at sea, for at least the last twelve months of sea service preceding the date of application.

3.14.2 For applicants for certificates other than the first watchkeeping certificate, testimonials may be incorporated in the watchkeeping service certificates referred to in Part 1.

3.14.3 For applicants for a first watchkeeping certificate of competency, the testimonials may be incorporated in a loose-leaf format into the Record Book or Training Portfolio for those following MNTB approved training programmes. In other cases, the specimen forms at Appendix 1A and 1C of Part 1 may be used as a guide.

3.14.4 Unless there are exceptional circumstances, the required testimonials must be signed by the Master or Chief Engineer of the ships in which qualifying sea service has been performed. In the case of service as Master or Chief Engineer, the testimonials must be signed by a responsible official of the company concerned.

3.15 Reduction in Sea Service

3.15.1 The amount of qualifying sea service for certificates of competency may be reduced as follows:

.1 Engineer Officer of Watch

A candidate who has satisfactorily completed MCA approved education and training may be granted reduction of equal length and the same description (motor or steam) as the sea service carried out during the training, provided that his or her on-board Training Record book has been completed to the satisfaction of the MCA.

.2 Engineer Officer of the Watch Endorsement

An engineer officer who wishes to serve as engineer officer in charge of a watch on vessels of a different machinery type to that specified in his chief engineer certificate, will be granted a full

remission of the sea service required for OOW but must pass the qualifying OOW oral examination for the type of machinery for which the endorsement is required.

.3 Chief Engineer Combined

A reduction of three months from either of the nine month periods specified in Table 3 above will be granted to an officer who has spent at least six months of either period whilst holding a chief engineer certificate of competency.

4.0 Marine Engine Operator Licence (MEOL)

4.1 The Regulations provide for the licensing of personnel serving on ships having a registered power of 350kW or more and less than 750kW.

4.2 A MEOL may be obtained by both deck and engine-room personnel who qualify by oral examination. The application procedure and MCA oral examination syllabus is given in Parts 9 and 11.

4.3 In order to be able to meet the entry requirements, applicants for examination should have satisfactorily completed:

.1 the short training programmes listed in Table 4 below; *and*

.2 either:

.1 24 months sea-service in ships of not less than 200kW registered power and training in basic engineering skills to the satisfaction of the MCA; *or*

.2 2 years shore employment with an engineering background acceptable to the MCA and 3 months qualifying sea service as a trainee marine engine operator in ships of not less than 200kW registered power; *or*

.3 an approved structured training programme.

4.4 Sea service or other industrial training completed before the age of sixteen will not be accepted.

4.5 Sea service and training may be performed in a dual purpose capacity provided such service is confirmed by appropriate testimonials stating the type of main propelling machinery and the nature of the duties performed. The MCA will be prepared to accept satisfactory completion of a structured training programme which provides sea service, basic engineering skills training and qualifying sea service as a trainee engine operator within a 24 month period.

5.0 Senior Marine Engine Operator Licence (SMEOL)

5.1 Any applicant for a SMEOL is required to have 6 months qualifying sea service as a Marine Engine Operator on ships of not less than 200 kW registered power, whilst holding an MEOL, before examination for the SMEOL.

5.2 The application procedure and MCA oral examination syllabus are given in Parts 9 and 11.

6.0 Engine-Room Watch Ratings

6.1 The STCW 95 requirements for engine-room watch ratings are laid down in Regulation III/4 and details of the training standard required are given in section A-III/4 of the STCW Code. Details of procedures relating to the certification of ratings are given in Part 10.

6.2 Owners of ships registered in the United Kingdom may apply for authorisation to issue UK watch rating certificates on behalf of MCA.

7.0 Ancillary Training

7.1 Ancillary training in safety and technical subjects is also required for the issue of a certificate of competency and is summarised below in Table 4. Although under the VQ system, this training may be subsumed in VQ units, a certificate for each ancillary course unit must be obtained by the candidate from the training provider. Other ancillary training is also required for service on certain types of ships and is detailed in Part 5.

7.2 Ancillary training certificates issued by overseas administrations in accordance with STCW/ILO (as listed at Appendix A) will be accepted by the MCA towards UK certificates of competency.

Table 4 Ancillary Training and Other Requirements

Additional Training Requirements	STCW 95 Regulation				MEOL	SMEOL	STCW Code Ref.
	III/1	III/2	III/3	III/4			
Personal Survival Techniques	✓			✓	✓		A-VI/1-1
Fire Prevention and Fire Fighting	✓			✓	✓		A-VI/1-2
Elementary First Aid	✓			✓	✓		A-VI/1-3
Personal Safety and Social Responsibility	✓			✓	✓		A-VI/1-4
Advanced Fire Fighting	✓				✓		A-VI/3
Proficiency in Survival Craft and Rescue Boats	✓				✓		A-VI/2 para 1-4
Medical First Aid	✓				✓		A-VI/4 para 1-3
Other							
Medical Fitness	✓	✓	✓	✓	✓	✓	

Note: Evidence of successful completion of training at an MCA approved centre is required for all ancillary training listed above.

8.0 MCA Oral Examinations

8.1 Candidates for certificates of competency are required to take an oral examination conducted by an MCA examiner at a MCA Marine Office. The examination is aimed at ensuring the candidate's ability to undertake the duties of OOW, second engineer, or chief engineer as appropriate. Details of procedures and syllabuses relating to examination and assessment leading to a UK certificate of competency are given in Part 9.

9.0 Medical Fitness Standards

- 9.1 It is a UK and international requirement that all certificated officers meet certain medical fitness and eyesight standards. Seafaring is a potentially hazardous occupation which calls for a high standard of health and fitness in those entering or re-entering the industry. Certificated officers must meet certain medical and eyesight standards, and hold a valid medical certificate issued under the Merchant Shipping (Medical Examinations) Regulations 1983³ or an acceptable equivalent.
- 9.2 Seafarers between the ages of 18 and 40 must be examined for medical fitness at intervals not exceeding five years and seafarers aged 40 or over at intervals not exceeding two years. Further details of medical fitness requirements are set out in Part 1 and MSN 1750 (M).

10.0 Further Advice

- 10.1 Further information, if required, is available from the MCA at any Marine Office or at the address given at the beginning of this MGN.

³ SI 1983/868 as amended by SI 1985/S12 and SI 1990/1985

**ACCEPTANCE OF OVERSEAS SHORT TRAINING PROGRAMMES
FOR ISSUE OF UK CERTIFICATES OF COMPETENCY**

TRAINING	ANY STCW SIGNATORY
Basic Training: Personal Survival Techniques	✓
Basic Training: Fire Prevention & Fire-Fighting	✓
Basic Training: Elementary First-Aid (<i>not equivalent to First Aid at Sea</i>)	✓
Basic Training: Personal Safety & Social Responsibility	✓
Navigational or Engine-Room Watchrating certificate	✓
Efficient Deck Hand (EDH) - ILO	✓
AB certificate (ILO)	✓
Certificate of Proficiency in Survival Craft and Rescue Boats (CPSC & RB) (<i>replaces existing CPSC, which itself replaced the Lifeboatman Certificate</i>)	✓ ¹
CPSC & RB for Fast Rescue Boats	–
Advanced Fire-Fighting	✓ ²
Medical First-Aid (<i>replaces existing First Aid at Sea</i>)	✓ ³
Proficiency in Medical Care (<i>replaces existing Ships Captain's Medical Training</i>)	–
Global Maritime Distress and Safety System (GMDSS) – General Operator's Certificate (GOC)	✓ ⁴
Radar-ARPA Simulator Training (operational level)	✓ ³
Radar-ARPA Simulator Training (management level)	–
Tanker Familiarisation Training	✓ ⁵
Specialised Tanker Training (oil/chemical/gas) (<i>for Tanker Endorsement</i>)	–
Medical Fitness Certificate	✓ ⁶
<p>¹ Not when a requirement for the issue of a UK certificate of competency, but acceptable for engineer <i>revalidation</i> under STCW 95 if from a UK recognised administration as listed at paragraph 1 below</p> <p>² Not when a requirement for the issue of a UK certificate of competency</p> <p>³ Only when higher UK training in the same field is being undertaken</p> <p>⁴ Only CEPT countries (and others with whom UK has bilateral agreements as listed at paragraph 2 below)</p> <p>⁵ Ratings only (and officers when training for higher certificates of competency is being undertaken)</p> <p>⁶ Only those countries specified in the relevant Merchant Shipping Notice (currently MSN 1750 (M))</p>	

1. UK-Recognised Administrations (See note 1 in Table above)

Australia	Hong Kong	Portugal
Belgium	India	Singapore
Canada	Italy	Spain
Denmark	Malta	South Africa
Eire	Netherlands	Sweden
Faroe Islands	New Zealand	Ukraine
Finland	Norway	USA
France	Pakistan	
Germany	Poland	

The following countries are likely to be recognised in the near future

Croatia	Greece
Iceland	Philippines

2. GMDSS accepted from the Following Countries Only

Australia
Canada
Greece
New Zealand
South Africa
Hong Kong (if issued under UK sovereignty)

CEPT countries:	Croatia	Norway
	Czech Republic	Poland
	Denmark	Portugal
	Eire	Romania
	Finland	Sweden
	Germany	Switzerland
	Hungary	Turkey
	Iceland	United Kingdom
	Liechtenstein	
	Netherlands	
	Philippines*	

*Philippines' GMDSS accepted with certificates issued by the national authorities and with diplomas from:
Norwegian Training Centre, Manila
Consolidated Training Systems Inc, Manila, (former Consolidated Maritime Resources Foundation Inc)
Philippine Transmarine Carriers Inc, Manila

A GMDSS General Operators Certificate which is not from one of the UK-recognised administrations listed in this section, will be acceptable as equivalent to a GMDSS Restricted Operators Certificate for the purpose of revalidation only, even though the UK does not otherwise recognise these GMDSS certificates.

