GENERAL NOTICE

NOTICE 264 OF 2005

SOUTH AFRICAN MARITIME SAFETY AUTHORITY

DRAFT MERCHANT SHIPPING (TRAINING AND CERTIFICATION) (FISHING AND MARINE MOTORMAN) REGULATIONS: PUBLICATION FOR COMMENT

The South African Maritime Safety Authority (SAMSA) publishes for public comment the proposed regulations and syllabuses set out in the accompanying Schedule. Written submissions should reach SAMSA **on or before 31 March 2005 (Note:** late submissions may be disregarded). These should be addressed to the Chief Executive Officer (for the attention of Mr C Briesch) and may be either:

- hand-delivered to SAMSA, Block E Hatfield Gardens, 333 Grosvenor Street, Hatfield, Pretoria; or
- mailed to **SAMSA,** PO Box 13186 Hatfield 0028; or
- faxed to (012) 342 3160; or
- e-mailed to cbriesch@samsa.org.za.

Telephonic enquiries should be directed to Mr C Briesch at (012) 342 3049. Attention is invited to the explanatory note following the regulations in Part **A** of the Schedule.

SCHEDULE

PART A
DRAFT REGULATIONS

Arrangement of regulations

PART 1
PRELIMINARY

Regulation No.

PART 2
ADMINISTRATION

PART 3
CERTIFICATION

Division 1—General

Division 2—Certificates

Subdivision 1—Masters and deck officers

Subdivision 2—Engineer officers

Subdivision 3—Ratings

Subdivision 4—Miscellaneous

Division 3—Recognition of non-fishing certification

Division 4—Revalidation

PART 4
QUALIFYING SERVICE

PART 5
TRAINING

PART 6
FINAL

ANNEXES

PART 1

PRELIMINARY

Title and commencement

1. (1) These regulations are called the Merchant Shipping (Training and Certification) (Fishing and Marine Motorman) Regulations, 2005.

(2) These regulations commence on <<date>>.

Interpretation

2. (1) In these regulations the expression "the Act" means the Merchant Shipping Act, 1951 (Act No. 57 of 1951), and, unless the context indicates otherwise, any expression given a meaning by the Act has the given meaning, and—

"accredited" means accredited by the Authority;

"accredited maritime training provider" means a maritime training provider that has been accredited in terms of regulation 40(2);

"approved" means approved by the Authority;

"approved training" means maritime training programmes or courses that have been approved in terms of regulation 41;

"candidate" means a person desiring certification in terms of these regulations;

"chief engineer officer" means the senior engineer officer responsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installation of a vessel;

"certification" means a certificate of competency or qualification, and includes an endorsement; and **"certificate"** has a corresponding meaning;

"certificated", in relation to—

(a) a deck officer on any particular kind of vessel, means holding valid appropriate certification that entitles the holder to serve as an officer in charge of a navigational watch on the kind of vessel concerned; and

(b) an engineer officer on any particular kind of vessel, means holding valid appropriate certification that entitles the holder to serve as an officer in charge of an engineering watch on the kind of vessel concerned;

"deck officer" means a ship's officer serving in the deck department on a vessel;

"endorsement" means a document that is appended to a certificate of competency and that either extends or restricts the terms of the certificate;

"engineer officer" means a ship's officer serving in the engine department on a vessel;

"equivalent certificate" has the meaning given by regulation 4(1);

"examiner" means a person appointed as an examiner under section 77(4) of the Act;

"fishing vessel" means a vessel that is used wholly or principally for the taking, catching or capturing of fish or other living resources of the sea or seabed for financial gain or reward;

"GT", in relation to a vessel, means its gross tonnage calculated in accordance with the Tonnage Regulations, 1986;

"holder", in relation to a certificate or other document, means the person identified as holder by that certificate or document;

"in-service training" means any training of a candidate (whether on or off a vessel) that is conducted by or on behalf of the candidate's employer during the candidate's period of employment with the employer;

"length" has the meaning it has in regulation **2** of the Tonnage Regulations, 1986;

"limited waters" means—

(a) the internal and territorial waters of the Republic;

(b) the exclusive economic zone of the Republic; and

(c) if the Republic has entered into an agreement with another State for the purposes of this paragraph, the waters under the jurisdiction of that other State that are covered by the agreement;

"near-coastal voyage" has the meaning it has in regulation 1(1) of the Merchant Shipping (Training and Certification) Regulations, 1999;

"pleasure vessel" means a vessel that is used solely for sport or recreation;

"port operations area" has the meaning it has in regulation 1(1) of the Merchant Shipping (Training and Certification) Regulations, 1999;

"propulsion power", in relation to a vessel, means the total maximum continuous rated output power in kilowatts of all the vessel's main in-board propulsion machinery that appears on the vessel's registration certificate or other official document;

"qualifying service" means the seagoing service that is claimed by a candidate for the purpose of qualifying for certification in terms of these regulations;

"rating" means a seaman other than a ship's officer;

"Registrar" means the Registrar of Seafarers designated in terms of regulation 5(1) of the Merchant Shipping (Training and Certification) Regulations, 1999;

"seagoing service" means service on vessels operating in limited or unlimited waters;

"second engineer officer" means the engineer officer next in rank to the chief engineer officer and upon whom responsibility for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installation of the vessel will fall in the event of the incapacity of the chief engineer officer;

"specified by the Authority" means specified by the Authority in a marine notice;

"STCW-F Convention" means the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995, and includes any subsequent amendment to the Convention that is specified by the Authority;

"the Code" means the *Code for South African Maritime Qualifications*, published by the Authority;

"unlimited voyage" has the meaning it has in regulation 1(1) of the Merchant Shipping (Training and Certification) Regulations, 1999;

"unlimited waters" means the waters beyond limited waters;

"valid", in relation to a certificate or other document, means a certificate or document that is current and that has not been suspended or cancelled.

(2) Any reference in these regulations to assessment at a particular level is to read as a reference to assessment at that particular level, as described in regulation 16(1).

Introduction to certification

3. (1) These regulations prescribe the conditions to be met and the standards of competence required for the issue of the certification specified in column 2 of the following table:

Item	Column 1	Column 2
	Capacity	*Appropriate certification in terms of these regulations*
MASTERS AND DECK OFFICERS		
1	Officer in charge of a navigational watch on fishing vessels of less than 24 metres in length operating in unlimited waters	Certificate of Competency as Deck Officer (Fishing < 24 metres)
2	Master of a fishing vessel of less than 24 metres in length operating in limited waters	Certificate of Competency as Skipper (Fishing < 24 metres)
3	Master of a fishing vessel of less than 24 metres in length operating in unlimited waters	Certificate of Competency as Skipper (Fishing < 24 metres) together with the Unlimited Waters Command Endorsement
4	Officer in charge of a navigational watch on fishing vessels of 24 metres or more in length operating in unlimited waters	Certificate of Competency as Deck Officer (Fishing ≥ 24 metres)
5	Master of a fishing vessel of 24 metres or more in length operating in limited waters	Certificate of Competency as Skipper (Fishing ≥ 24 metres)
6	Master of a fishing vessel of 24 metres or more in length operating in unlimited waters	Certificate of Competency as Skipper (Fishing ≥ 24 metres) together with the Unlimited Waters Command Endorsement

Item	Column 1	Column 2
	Capacity	***Appropriate certification in terms of these regulations***
ENGINEER OFFICERS		
7	Chief engineer officer of a fishing vessel **of** less than *350* kW propulsion power	Certificate of Competency as Marine Motorman Grade 2
8	Second engineer officer of a fishing vessel of less than 750 kW propulsion power	
9	Officer in charge of an engineering watch on fishing vessels of less than 2 *000* kW propulsion power	
10	Chief engineer officer of **a** fishing vessel of less than *750* kW propulsion power	Certificate of Competency as Marine Motorman Grade I
11	Second engineer officer of a fishing vessel of less than **2** *000* kW propulsion power	
12	Officer in charge of an engineering watch on fishing vessels of any kilowatt propulsion power	
13	Chief engineer officer of a vessel of less than 350 kW propulsion power operating in a port operations area	
14	Second engineer officer of a vessel of 1 500 kW propulsion power or more operating in a port operations area	
15	Chief engineer officer of a vessel of less than 350 kW propulsion power on near-coastal voyages	
16	Second engineer officer of a vessel of less than *750* kW propulsion power on near-coastal voyages	
17	Officer in charge of an engineering watch on vessels of less than 750 kW propulsion power on unlimited voyages	

Item	Column 1	Column 2
	Capacity	*Appropriate certification in terms of these regulations*
18	Chief engineer officer of a fishing vessel of less than 2 000 kW propulsion power	Certificate of Competency as Marine Motorman Higher Grade
19	Second engineer officer of a fishing vessel of any kilowatt propulsion power	
20	Chief engineer officer of a vessel of less than 750 kW propulsion power on near-coastal voyages or operating in a port operations area	
21	Officer in charge of an engineering watch on vessels of less than 750 kW propulsion power on unlimited voyages	
22	Chief engineer officer of a fishing vessel of any kilowatt propulsion power	Certificate of Competency as Chief Engineer Officer (Fishing)
	RATINGS	
23	Rating forming part of a navigational watch on fishing vessels of any length	Certificate of Qualification as Able Seaman (Fishing)

(2) A person is qualified for the purposes of the Act to serve in a capacity specified in an item in column 1 of the table in subregulation (1) if—

(a) in the case of a master or ship's officer, the person—

(i) holds a valid certificate of competency specified in column **2** of the item;

(ii) holds an equivalent certificate; or

(iii) has been authorised under section **83(2)** of the Act to serve in the specified capacity; and

(b) in the case of a rating, the person holds—

(i) a valid certificate of qualification specified in column **2** of the item;

(ii) an equivalent certificate; or

(iii) a valid certificate issued under the authority of the government of another country, that the Authority is satisfied qualifies the person to serve in the specified capacity.

(3) To avoid doubt—

(a) the ranking of the waters limitation entitles the holder of a certificate for unlimited waters to serve in the certificated capacity also on vessels operating in limited waters;

(b) the ranking of the vessel length limitation entitles the holder of a certificate for a specified vessel length to serve in the certificated capacity also on vessels of lesser length;

(c) the ranking of the voyage limitation entitles—

(i) the holder of a certificate for unlimited voyages to serve in the certificated capacity also on vessels engaged on near-coastal voyages or in port operations; and

(ii) the holder of a certificate for near-coastal voyages to serve in the certificated capacity also on vessels engaged in port operations; and

(d) the holder of a certificate of competence as Skipper (Fishing < 24 metres) or Skipper (Fishing ≥ 24 metres) (whether or not the Unlimited Waters Command Endorsement is also held) is entitled to serve in any deck officer capacity also on fishing vessels operating in unlimited waters.

Equivalent certificates

4. (1) ***An equivalent certificate*** is a valid certificate that—

(a) was issued under the Act before the commencement of these regulations; and

(b) is taken, in terms of regulation **23** of the Merchant Shipping (Safe Manning) Regulations, 1999, to be equivalent to the specified certificate in terms of these regulations.

(2) The holder of an equivalent certificate must exchange it for the corresponding certificate in terms of these regulations in the manner and within the time specified by the Authority.

PART 2

ADMINISTRATION

Registrar of seafarers

5. The Registrar has the following functions under these regulations:

(a) to issue certification in terms of these regulations;

(b) to keep record of the certification and of all related matters;

(c) to respond to requests to verify the authenticity or validity of the certification;

(d) to perform functions incidental to any of the previously described functions.

Senior examiners

6. (1) The Authority may, for the purposes of these regulations, designate in writing one or more examiners as a senior deck or engineer examiner.

(2) In addition to his or her powers and functions as an examiner, a senior examiner has the supervisory and other responsibilities stated in his or her instrument of designation.

Quality assurance

7. The Authority must implement a quality assurance system that covers at least the functions of the Registrar and the examiners in terms of these regulations.

Syllabus committee

8. (1) The Authority may establish acommittee (the ***syllabus committee***) to advise it about the implementation and operation of these regulations and the Code.

(2) The syllabus committee consists of—

(a) the chair, who must be a senior examiner designated in writing for the purpose by the Authority; and

(b) not more than eight other members appointed in writing by the Authority, being persons representing the interests of participants in the Republic's maritime industry and maritime training establishments,

(3) The Authority may give the syllabus committee written directions about—

(a) the way in which the committee is to carry out its work; and

(b) procedures to be followed in relation to its meetings.

(4) The syllabus committee must take account of the directions given to it by the Authority.

Approvals and accreditations

9. (1) Every approval or accreditation given in terms of these regulations—

(a) must be given in writing;

(b) must state the date on which it takes effect and expires and the conditions (if any) on which it is given; and

(c) may, after reasonable notice, be altered or cancelled.

(2) Every approval or accreditation, or alteration or cancellation of an approval or accreditation, given in terms of these regulations must be notified by marine notice.

PART 3

CERTIFICATION

Division I—General

Dates and places for level 3 assessments

10. (1) The Authority must publish at least annually in a marine notice the dates on which and the places where level **3** assessments are to be held.

(2) However, these dates and places may be varied by arrangement between the examiner and candidate concerned.

How to apply

11. (1) Application for certification in terms of these regulations must be made in the form and manner specified by the Authority and be accompanied by the appropriate documents given in Annex 1.

(2) If the certification concerned requires level **3** assessment, the application must be made not less than **14** days before the intended date for the assessment,

Examiner may verify eligibility

12. Before applying for certification, a candidate may give the examiner the relevant information and documents (for example, certificates of discharge, testimonials, training records and watchkeeping certificates) and request the examiner to verify his or her eligibility for certification in terms of these regulations.

Proficiency in English

13. **A** candidate is not entitled to any certification in terms of these regulations as a master or ship's officer unless the candidate proves, to the satisfaction of the examiner, that his **or** her proficiency in written and spoken English is of standard appropriate to the routine and emergency duties and responsibilities of a holder of the kind of certification concerned.

Unsatisfactory conduct

14. (1) If the Authority is satisfied that a candidate's record of conduct during qualifying service is unsatisfactory, the Authority—

(a) must refuse the application for certification; and

(b) may require that the candidate obtain a further period of appropriate seagoing service, not exceeding 24 months, before he or she may reapply for certification.

(2) Unsatisfactory conduct includes conduct of the following kind:

(a) signing a crew agreement, as mentioned in section 102 of the Act, and failing, without reasonable excuse, to join the vessel concerned;

(b) absence without leave or desertion from a vessel;

(c) misconduct on board a vessel.

Bribery

15. A candidate who has been convicted of bribery as described in section 314 of the Act or upon whom a penalty for such bribery has been imposed under section 324 of the Act is disqualified from obtaining any certification in terms of these regulations for a period expiring 12 months after the date of the conviction or imposition of the penalty, as the case may be.

Assessment levels

16. (1) For the purposes of these regulations, a candidate is to be assessed at one or more of the following levels of assessment (listed below from lowest to highest) to meet the appropriate standard of competence specified in the Code:

(a) level 1—candidates required to complete in-service training are assessed at *this* level during the in-service training programme;

(b) level 2—candidates required to complete approved training are assessed at this level while undergoing training at an accredited maritime training provider;

(c) level 3—all candidates for certificates of competency are assessed at this level by way of an oral examination conducted by an examiner.

(2) To avoid doubt, a candidate who is required to be assessed at more than one level of assessment may not be assessed at a higher level before he or she has been assessed as competent at the lower level.

Level 2 assessment

17. (1) This regulation applies to examinations that form part of assessment at level 2.

(2) The Authority must designate in writing one or more examiners to—

(a) moderate examination question papers and memoranda;

(b) moderate examination scripts;

(c) re-mark examination scripts, if requested by the maritime training provider concerned; and

(d) consult with the relevant instructors or assessors of the maritime training provider concerned, when a negative trend or defect is detected in a memorandum or in examination scripts.

(3) For each of the subjects Celestial Navigation; Chartwork; and Naval Architecture (master and deck officer certification only), the minimum aggregate pass-mark is 60 per cent. For the other subjects the minimum aggregate pass mark is 50 per cent.

(4) In the case of doubt about a candidate's final mark for the subjects Celestial Navigation; Chartwork; Naval Architecture; and Engineering Knowledge, the examiner's decision is final.

Level 3 assessment

18. (1) The main object of the level 3 assessment is to assesses a candidate's competence in the practical aspects of a seafarer's duties and responsibilities.

(2) The assessment is to be conducted by an examiner in the presence of another approved person.

(3) (a) If a candidate passes the assessment and complies with all the other requirements for the issue of the certification concerned, the examiner must issue the candidate with a certificate of pass in the approved form.

(b) The certificate —

(i) is valid from its date of issue for a period of six months;

(ii) during this period, serves as interim certification (pending the issue of the original appropriate certification by the Registrar); and

(iii) must be surrendered to the Authority when the holder is issued with the original certification.

(4) If a candidate fails the assessment, the examiner must give the candidate a written notice, signed by the examiner, stating —

(a) the details of the assessment;

(b) the date the assessment was failed;

(c) the conditions (if any) imposed by the examiner; and

(d) the requirement to produce the notice when next applying for level 3 assessment.

(5) If the examiner fails a candidate because of a significant deficiency in the candidate's practical knowledge, the examiner may require that the candidate perform a further period of appropriate seagoing service, not exceeding six months, before he or she may reapply for the certification concerned.

(6) If a candidate, without reasonable excuse, fails to appear for the assessment at the appointed time and place, the examiner must fail the candidate by default.

Mislaid, lost or destroyed certificates

19. If certification issued in terms of these regulations is at any time mislaid, lost or destroyed, the Registrar may issue replacement certification on application made by the holder of the certification in the form and manner and including the information and accompanied by the documents specified by the Authority.

Division 2—Certificates

Subdivision I—Masters and deck officers

Deck Officer (Fishing < 24 metres)

20. For the certificate of competency as Deck Officer (Fishing < 24 metres), a candidate must—

(a) be at least 18 years of age;

(b) have performed seagoing service of not less than 12 months in the deck department on fishing vessels of 12 metres or more in length;

(c) have performed, during the required seagoing service, bridge watchkeeping duties under the supervision of a certificated deck officer for a period of not less than six months; and

(d) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

Skipper (Fishing < 24 metres)

21. (1) For the certificate of competency as Skipper (Fishing < 24 metres), a candidate must—

ALTERNATIVE A

(a) have performed seagoing service of not less than 12 months as officer in charge of a navigational watch on fishing vessels of 12 metres or more in length while holding as a minimum the certificate of competency as Deck Officer (Fishing < 24 metres) or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code,

or

ALTERNATIVE B

(a) have performed seagoing service of not less than 12 months as officer in charge of a navigational watch on fishing vessels of 12 metres or more in length while holding as a minimum the small vessel certificate of competence as Coastal Skipper (> 9 metres)'; and

(b) have completed approved training and been assessed at levels 2 and 3 to meet the standard of competence specified in the Code,

or

ALTERNATIVE C

(a) have performed seagoing service of not less than 12 months as officer in charge of a navigational watch on fishing vessels of 12 metres or more in length while holding as a minimum the certificate of competency as Deck Officer (Fishing ≥ **24** metres) or an equivalent certificate; and

(b) have completed approved training and been assessed at level **3** to meet the standard of competence specified in the Code,.

(2) For the purposes of paragraph (b) of ALTERNATIVES A and B in subregulation (1), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/2 of the STCW-F Convention,

Deck Officer (Fishing ≥ 24 metres)

22. (1) For the certificate of competency as Deck Officer (Fishing ≥ 24 metres), a candidate must—

(a) be at least 18 years of age;

(b) have performed seagoing service of not less than 12 months in the deck department on fishing vessels of 12 metres or more in length;

(c) have performed, during the required seagoing service, bridge watchkeeping duties under the supervision of a certificated deck officer for a period of not less than six months; and

(d) have completed approved training and been assessed at levels 2 and 3 to meet the standard of competence specified in the Code.

(2) For the purposes of subregulation (1)(d), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/2 of the STCW-F Convention.

Skipper (Fishing ≥ 24 metres)

23. (1) For the certificate of competency as Skipper (Fishing ≥ **24** metres), **a** candidate must—

' This certification is issued under the Merchant Shipping (Small Vessel Safety) Regulations, **2002.**

(a) have performed seagoing service of not less than 12 months as officer in charge of a navigational watch on fishing vessels of 12 metres or more in length while holding as a minimum the certificate of competency as Deck Officer (Fishing ≥ 24 metres) or Skipper (Fishing < 24 metres), or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

(2) For the purposes of subregulation (1)(b), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/3 of the STCW-F Convention.

Unlimited Waters Command Endorsement

24. (1) For the Unlimited Waters Command Endorsement, a candidate must—

(a) hold the certificate of competency as Skipper (Fishing <24 metres) or Skipper (Fishing ≥ 24 metres), or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

(2) For the purposes of subregulation (1)(b), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/1 of the STCW-F Convention.

Subdivision 2—Engineer officers

Marine Motorman Grade 2

25. (1) For the certificate of competency as Marine Motorman Grade 2, a candidate must—

(a) be at least 18 years of age;

(b) subject to subregulation (2), have performed seagoing service of not less than 12 months in the engine-room department on vessels of 100 kW propulsion power or more, of which not less than three months must have been served on vessels other than naval vessels; and

(c) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

(2) For a candidate holding a qualification as artisan in an approved trade that was obtained before commencing seagoing service, the period of **12** months in subregulation (1)(b) is reduced to six months.

Marine Motorman Grade 1

26. (1) For the certificate of competency as Marine Motorman Grade 1, a candidate must—

ALTERNATIVE **A**

(a) subject to subregulation (2)(a), have performed seagoing service of not less than 12 months as an officer in charge of an engineering watch on vessels of 350 kW propulsion power or more while holding as a minimum the certificate of competency as Marine Motorman Grade 2 or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code,

or

ALTERNATIVE B

(a) subject to subregulation (2)(b), have performed seagoing service of not less than 24 months in the engine-room department on vessels of 2 000 kW propulsion power or more; and

(b) have completed approved training and been assessed at levels 2 and 3 to meet the standard of competence specified in the Code.

(2) However, if the candidate holds a qualification as artisan in an approved trade that was obtained before commencing seagoing service—

(a) the period of 12 months in paragraph **(a)** of ALTERNATIVE A in regulation (1) is reduced to six months; and

(b) the period of **24** months in paragraph (a) of ALTERNATIVE **B** in regulation (1) is reduced to 18 months.

(3) For the purposes of paragraph (b) of ALTERNATIVES **A** and B in subregulation (1), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/5 of the STCW-F Convention appropriate to second engineer officers on fishing vessels of 750 kW propulsion power or more.

Marine Motorman Higher Grade

27. (1) For the certificate of competency as Marine Motorman Higher Grade, a candidate must—

(a) have performed seagoing service of not less than 12 months as officer in charge of an engineering watch on vessels of 750 kW propulsion power or more while holding as a minimum the certificate of competency as Marine Motorman Grade 1 or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

(2) For the purposes of subregulation (1)(b), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/5 of the STCW-F Convention appropriate to chief engineer officers on fishing vessels of 750 kW propulsion power or more.

Chief Engineer Officer (Fishing)

28. (1) For the certificate of competency as Chief Engineer Officer (Fishing), a candidate must—

ALTERNATIVE A

(a) have performed seagoing service of not less than six months as officer in charge of an engineering watch on fishing vessels of 2 000 kW propulsion power or more while holding as a minimum the certificate of competency as Marine Motorman Higher Grade or an equivalent certificate; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code,

or

ALTERNATIVE B

(a) have performed seagoing service of not less than six months as officer in charge of an engineering watch on fishing vessels of 2 000 kW propulsion power or more while holding as a minimum the certificate of competency as Engineer Office?; and

(b) have completed approved training and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

(2) For the purposes of paragraph (b) of ALTERNATIVES A and B in subregulation (1), the syllabus in the Code must cover at least the material set out in the appendix to Regulation II/5 of the STCW-F Convention appropriate to chief engineer officers on fishing vessels of *750* kW propulsion power or more.

Subdivision 3—Ratings

Able Seaman (Fishing)

29. For the certificate of qualification as Able Seaman (Fishing), a candidate must—

(a) be at least 18 years of age;

(b) have performed seagoing service of not less than 12 months in the deck department on fishing vessels of 12 metres or more in length;

(c) have completed, during the required seagoing service, on-board in-service training and been assessed at level 1 to meet the standard of competence specified in the candidate's approved training record book; and

(d) have completed approved training and been assessed at level 2 to meet the standard of competence specified in the Code.

---

[2] This certification is issued in terms of the Merchant Shipping (Training and Certification) Regulations, 1999.

Subdivision 4—Miscellaneous

Proficiency in Survival Craft (Local)

30. For the certificate of qualification entitled Proficiency in Survival Craft (Local), a candidate must—

(a) be at least **18** years of age;

(b) have performed seagoing service of not less than six months on vessels of 12 metres or more in length; and

(c) have completed approved training and been assessed at level 2 to meet the standard of competence specified in the Code.

Division 3—Recognition of non-fishing certification

Recognition of naval bridge watchkeeping certificate

31. (1) This regulation applies if a candidate—

(a) holds of a valid naval bridge watchkeeping examination board certificate; and

(b) has seagoing service, performed not earlier than 10 years before the date of the application for certification, of not less than 12 months as officer in charge of a navigational watch on South African naval vessels of 24 metres or more in length.

(2) For the certificate of competency as Deck Officer (Fishing ≥ **24** metres), the candidate must—

(a) have performed seagoing service of not less than six months in the deck department on fishing vessels of 12 metres or more in length;

(b) have performed, during the required seagoing service, bridge watchkeeping duties under the supervision of a certificated deck officer for a period of not less than two months; and

(c) have completed approved training covering the subjects Naval Architecture, Ship's Power Plant, Personnel Management and Ship's Business, and Fishing Technology and been assessed at levels 2 and **3** to meet the standard of competence specified in the Code.

Master and deck officer (non-fishing) certification endorsements

32. (1) The holder of certification specified in column 1 of **an** item in the table below may apply to the Authority for the certification specified in column 2 of the item, if he or she—

(a) has performed seagoing service of not less than six months in the deck department on fishing vessels of 12 metres or more in length;

(b) has performed, during the required seagoing service, bridge watchkeeping duties under the supervision of a certificated deck officer for a period of not less than one month; and

(c) has completed approved training covering the subject Fishing Technology and been assessed at level 2 to meet the standard of competence specified in the Code:

Item	Column 1	Column 2
	Certificate of competency	*Appropriate endorsement in terms of these regulations*
1	Skipper (Coastal)	Master of a fishing vessel of less than 24 metres in length operating in limited waters
2	Mate (Coastal)	Officer in charge of a navigational watch on fishing vessels of 24 metres or more in length operating in limited waters
3	Master (Coastal)	Master of a fishing vessel of 24 metres or more in length operating in limited waters
4	Deck Officer	Officer in charge of a navigational watch on fishing vessels of 24 metres or more in length operating in unlimited waters
5	Chief Mate	Master of a fishing vessel of 24 metres or more in length operating in unlimited waters
6	Master	

(2) The application must be made in the form and manner, include the information and be accompanied by the documents specified by the Authority.

Division 4—Revalidation

Certificates of competency to be revalidated

33. (1) A certificate of competency issued in terms of these regulations, and any corresponding equivalent certificate, is not valid for seagoing service unless revalidated at intervals not exceeding five years to establish continued professional competence in accordance with subregulation (2).

(2) Continued professional competence is established—

(a) by having completed approved refresher training and been assessed at level 2 to meet the standard of competence specified in the Code; and

(b) by having—

(i) performed seagoing service, appropriate to the certificate held, of not less than 12 months during the preceding five years;

(ii) performed functions considered by the Authority to be equivalent to the seagoing service mentioned in subparagraph (i); or

(iii) performed seagoing service in a supernumerary capacity appropriate to the certificate held of not less than three months and been assessed at level 3 to meet the standard of competence specified in the Code.

(3) Application for revalidation must be made in the form and manner, include the information and be accompanied by the documents specified by the Authority.

PART 4

QUALIFYING SERVICE

Proof of qualifying service

34. (1) A candidate has the onus of producing proof of qualifying service to the satisfaction of the examiner.

(2) The examiner may require a candidate to explain, to the examiner's satisfaction, any periods of discontinuity in the candidate's qualifying service.

Qualifying service on foreign vessels

35. Qualifying service performed on foreign vessels does not to count towards satisfying the seagoing service requirements for certification in terms of these regulations unless the service has been verified to the examiner's satisfaction.

Misrepresenting qualifying service

36. (1) If the Authority finds that a candidate has wilfully misrepresented qualifying service, the candidate is disqualified from certification in terms of these regulations until he or she has made up any deficiency in qualifying service plus an additional 12 months of the appropriate seagoing service.

(2) To avoid doubt, additional seagoing service performed because of subregulation (1) does not count towards satisfying the seagoing service requirements for any other certification (whether in terms of these regulations or otherwise under the Act).

Calculating qualifying service

37. Qualifying service is calculated from the day of engagement on a vessel to the day of discharge from the vessel and consists of the calendar days between the days of engagement and discharge, both days inclusive, reckoning 30 days to a month and 12 months to a year.

Non-fishing service

38. (1) Qualifying service performed exclusively in the deck department on vessels, other than fishing vessels, of 12 metres or more in length counts in full towards satisfying the seagoing service requirements for the certificates of competency as Deck Officer (Fishing < **24** metres **)** and Deck Officer (Fishing ≥ **24** metres).

(2) However, this service counts only if the candidate —

(a) has seagoing service of not less than six months in the deck department on fishing vessels of 12 metres or more in length; and

(b) has performed, during the required seagoing service, bridge watchkeeping duties under the supervision of a certificated deck officer for a period of not less than six months.

Validity of qualifying service

39. For the purpose of satisfying the seagoing service requirements for certification in terms of these regulations, a candidate's qualifying service must have been performed not earlier than 10 years before the date of the final assessment for the certification concerned or within such other period as the Authority may allow in special circumstances.

PART *5*

TRAINING

Accreditation of maritime training providers

40. (1) To be accredited as a maritime training provider authorised to conduct approved training in terms of these regulations, a maritime training provider must —

(a) have appointed instructors who—

(i) have an appreciation of the training programme and an understanding of the specific training objectives for the particular type of training to be conducted;

(ii) are qualified in the task for which the training is to be provided;

(iii) if using a simulator—

(aa) have received appropriate guidance in instructional techniques involving the use of simulators; and

(bb) have gained practical operational experience on the particular type of simulator to be used;

(b) have appointed training supervisors, appropriate to the approved training programmes and courses to be conducted by the provider, who have a thorough knowledge of each approved training programme and course they are to supervise including its specific objectives;

(c) have appointed assessors who have received appropriate training in assessment methods and practice and—

(i) have an appropriate level of knowledge and understanding of the competence to be assessed;

(ii) are qualified in the task for which the assessment is to be made;

(iii) have received appropriate guidance in assessment methods and practice;

(iv) have gained practical assessment experience; and

(v) if they are to conduct assessment involving the use of simulators, have gained practical assessment experience on the particular type of simulator to be used, under the supervision and to the satisfaction of an experienced assessor;

(d) maintain records of all certificates issued to students who complete their maritime training at the provider, incorporating details of the training received and the relevant dates, together with their full names and dates and places of birth;

(e) make available information about the status of such certificates and about approved training programmes and courses as appropriate;

(f) continuously monitor its training and assessment activities through a quality-standards system to ensure achievement of its defined objectives including those concerning the qualifications and experience of its instructors and assessors;

(g) undergo evaluation at intervals not exceeding three years, by suitably qualified persons who are not themselves involved in the training or assessment activities concerned, so as to verify that the administrative and operational procedures at all levels within the provider are managed, organised, undertaken, supervised and monitored internally in order to ensure their fitness for purpose and achievement of stated objectives.

(2) Application for accreditation must be made in the form and manner, include the information and be accompanied by the documents specified by the Authority.

Approval of maritime training programmes and courses

41. For approval in terms of these regulations, a training programme or course must—

(a) be structured in accordance with written programmes that—

(i) are based on the relevant syllabuses in the Code; and

(ii) include such methods and media of delivery, procedures, and course material as are necessary to achieve the standard of competence specified in the Code; and

(b) be conducted, monitored, evaluated and supported by persons qualified in accordance with regulation 40(1)(a), (b) and (c).

In-service training

42. (1) Anyone conducting in-service training, whether on or off a vessel, that is intended to be used in qualifying for certification in terms of these regulations must—

(a) have an appreciation of the training programme and an understanding of the specific training objectives for the particular type of training being conducted;

(b) be qualified in the task for which the training is being conducted; and

(c) if conducting training using a simulator—

(i) have received appropriate guidance in instructional techniques involving the use of simulators; and

(ii) have gained practical operational experience on the particular type of simulator being used.

(2) Anyone who is responsible for supervising in-service training that is intended to be used in qualifying for certification in terms of these regulations must have a thorough understanding of the training programme and the specific objectives for each type of training being conducted.

(3) Anyone conducting in-service assessment of the competence of a candidate, whether on or off a vessel, that is intended to be used in qualifying for certification in terms of these regulations must—

(a) have an appropriate level of knowledge and understanding of the competence to be assessed;

(b) be qualified in the task for which the assessment is being made;

(c) have received appropriate guidance in assessment methods and practice;

(d) have gained practical assessment experience; and

(e) if conducting assessment involving the use of simulators, have gained practical assessment experience on the particular type of simulator under the supervision and to the satisfaction of an experienced assessor.

(4) If the Authority is satisfied that an in-service training programme meets the requirements of these regulations, the Authority may approve the programme.

Training record book

43. (1) In-service training that is to be conducted on board a vessel must be set out in an approved training record book.

(2) **A** duly completed approved training record book is evidence that the book's holder has completed the training recorded in it.

PART 6

FINAL

Transitional

44. Before <<date>>, the requirements for the issue of certification prescribed by the regulations repealed by regulation 45 continue to have effect in relation to those persons who commenced seagoing service or approved training before the commencement of these regulations.

Repeals

45. These regulations are repealed, subject to regulation 44:

(a) the Examination Regulations for Certificates of Competency for Fishermen, 1993, published by Government Notice No. R 2317 of 1 December 1993, as amended by Government Notice No. R. 1468 of 29 September 1995;

(b) the Examination Regulations for Certificates of Competency as Marine Motormen, 1993, published by Government Notice No. R 2314 of 1 December 1993.

Consequential amendments

46. Each regulation that is specified in Annex 2, 3 and 4 is amended as set out in the applicable items of the Annex concerned.

ANNEX 1

(Regulation 11(1))

DOCUMENTS TO ACCOMPANY APPLICATION FOR CERTIFICATION

"X" indicates a requirement to produce the specified document(s). Certificates that are required to be produced must be valid.

Item	Documents	Certification										
		Masters and deck officers					Engineer officers				Ratings	Other
		Unlimited Waters Command Endorsement	Skipper (Fishing ≥ 24 metres)	Deck Officer (Fishing ≥ 24 metres)	Skipper (Fishing < 24 metres)	Deck Officer (Fishing < 24 metres)	Chief Engineer Officer (Fishing)	Marine Motorman Higher Grade	Marine Motorman Grade 1	Marine Motorman Grade 2	Able Seaman (Fishing)	Proficiency in survival craft (local)
1	Proof of identity	X	X	X	X	X	X	X	X	X	X	X
2	2 x Black & white photographs (passport size)	X	X	X	X	X	X	X	X	X	—	—
3	Testimonials	X	X	X	X	X	—	—	—	—	—	—
4	Previous certificate of competency	X	X	X	X	—	X	X	X	—	—	—
5	Trainee watchkeeper certificate	—	—	X	—	X	—	—	—	—	—	—
6	Watchkeeping certificate	—	X	—	X	—	—	—	—	—	—	—
7	Eyesight certificate	X	X	X	X	X	—	—	—	—	X	—
8	Medical certificate	X	X	X	X	X	X	X	X	X	X	X
9	First aid at sea certificate	—	—	X	X	X	X	X	X	X	X	—
10	Ship captain's medical training certificate	X	X	—	—	—	—	—	—	—	—	—

Item	Documents	Certification										
		Masters and deck officers					Engineer officers				Ratings	Other
		Unlimited Waters Command Endorsement	Skipper (Fishing ≥ 24 metres)	Deck Officer (Fishing ≥ 24 metres)	Skipper (Fishing < 24 metres)	Deck Officer (Fishing < 24 metres)	Chief Engineer Officer (Fishing)	Marine Motorman Higher Grade	Marine Motorman Grade 1	Marine Motorman Grade 2	Able Seaman (Fishing)	Proficiency in survival craft (local)
11	Fire-fighting course certificate	X	X	X	X	X	X	X	X	X	X	—
12	Advanced fire-fighting course certificate	X	X	X	X	—	X	X	—	—	—	—
13	Certificate of proficiency in survival craft (local)	X	X	X	—	—	X	X	—	—	X	—
14	Certificate of proficiency in liferafts	—	—	—	X	X	—	—	X	X	—	—
15	Pre-sea training course certificate	—	—	X	—	X	—	—	X	X	X	X
16	Restricted marine radiotelephone operator's certificate	—	X	X	X	X	—	—	—	—	—	—
17	GMDSS general operator's certificate	X*	—	—	—	—	—	—	—	—	—	—
18	Documentary proof of pass at an accredited maritime training provider	X	X	X	X	X	X	X	X	X	X	X
19	Approved training record book	—	—	—	—	—	—	—	—	—	X	—
20	Proof of seagoing service	X	X	X	X	X	X	X	X	X	X	X
21	Receipt for certification fee	X	X	X	X	X	X	X	X	X	X	X

Only required for the endorsement to the certificate of competency as Skipper (Fishing ≥ 24 metres).

EXPLANATORY NOTES

(1) A testimonial is a document, satisfactory to the examiner, testifying to a candidate's character (including sobriety), experience, ability and general good conduct on board a vessel. A testimonial must be signed by the master of the vessel concerned or by the person having responsibility for the operation of the vessel.

(2) A trainee watchkeeper certificate is a certificate signed by the master of the vessel or vessels on which qualifying service was performed stating that the candidate performed the required supervised watchkeeping duties for not less than eight hours in every 24 hours during the period of qualifying service covered by the certificate, and stating that the candidate has not, during that period, served more than two months as helmsman. The certificate must be in accordance with the form of certificate given in the Code.

(3) A watchkeeping certificate is a certificate signed by the master of the vessel or vessels on which qualifying service was performed stating that the candidate performed watchkeeping duties for not less than eight hours in every 24 hours during the period of qualifying service covered by the certificate, and stating that the candidate has not, during that period, served more than two months as helmsman. The certificate must be in accordance with the form of certificate given in the Code

(4) An eyesight certificate is the eyesight certificate mentioned in regulation 3 of the Merchant Shipping (Eyesight and Medical Examination) Regulations, 2004.

(5) A medical certificate is the medical certificate mentioned in regulation 3 of the Merchant Shipping (Eyesight and Medical Examination) Regulations, 2004.

(6) A First Aid at Sea Certificate is the certificate mentioned in regulation 2(b) of the Merchant Shipping (Medical Training) Regulations, 1992.

(7) A Ship Captain's Medical Training Certificate is the certificate mentioned in regulation 2(c) of the Merchant Shipping (Medical Training) Regulations, 1992.

(8) A fire-fighting course certificate is a certificate attesting successful completion of approved training in fire-fighting. The certificate is valid from the date of completing the course for a period of five years.

(9) An advanced fire-fighting course certificate is a certificate attesting successful completion of approved training in advanced fire-fighting. The certificate is valid from the date of completing the course for a period of five years.

(10) A certificate of proficiency in survival craft (local) is the certificate of qualification mentioned in regulation 30.

(11) A certificate of proficiency in liferafts is the certificate of qualification mentioned in regulation 34 of the Merchant Shipping (Training and Certification) Regulations, 1999.

(12) A pre-sea training course certificate is a certificate attesting the successful completion of the approved training mentioned in regulation 4(1)(g) of the Merchant Shipping (Safe Manning) Regulations, 1999.

(13) A restricted marine radiotelephone operator's certificate and a GMDSS general operator's certificate are certificates of proficiency issued by the Independent Communications Authority of South Africa.

(14) Proof of qualifying service may be given by producing one or more of the following:

(a) a Seaman's Record Book;

(b) a certificate of discharge;

(c) a declaration by an employer stating the seagoing service performed during the period of employment.

In addition, for engineer officer certification, proof of qualifying service may be given by one or more testimonials, signed by the chief engineer officer or master of the vessel or vessels on which the service was performed, stating—

(d) the vessel's name, official number, type of propulsion machinery and propulsion power (in kilowatts);

(e) the nature of duties performed by the candidate;

(f) the period the candidate performed watchkeeping duties or, for vessels of 750 kW propulsion power or more, that the candidate performed watchkeeping for not less than eight hours in every 24 hours during the period of qualifying service covered by the testimonial; and

(g) the candidate's actual rank when performing watchkeeping duties.

(15) Documentary proof of pass at an accredited maritime training provider is a document issued by the provider concerned attesting the successful completion of stated approved training.

ANNEX 2

(Regulation **46)**

AMENDMENT OF SHIP'S OFFICERS MEDICAL TRAINING REGULATIONS, 1992

1. In this Annex "the Regulations" means the Ship's Officers Medical Training Regulations, 1992, published by Government Notice No. R. 2666 of 25 September 1992, as amended by Government Notice No. R. **533** of **25** March 1994.

2. Regulation 1 of the Regulations is amended—

(a) by the substitution for the definition of "approved" of the following definition:

"'approved' means approved by the Authority;";

(b) by the deletion of the definition of "department"; and

(c) by the addition of the following definition:

"'training and certification regulations' means the regulations under the Act relating to the training and certification of masters and seamen.".

3. The following regulations are substituted for regulations 2 and **3,** respectively, of the Regulations:

"**Application**

2. These regulations apply to every person who, in terms of the training and certification regulations, is required to hold one or more of the following certificates:

(a) the Elementary First Aid Certificate;

(b) the First Aid at Sea Certificate;

(c) the Ship Captain's Medical Training Certificate.

General

3. (1) The medical training of masters and seamen in the merchant and fishing fleet shall be based upon approved training programmes.

(2) These regulations shall refer to the following:

(a) The Elementary First Aid Certificate course.

(b) The First Aid at Sea Certificate course.

(c) The Ship Captain's Medical Training Certificate course.".

4. Regulation 4 of the Regulations is amended by the substitution in subregulation (1) for the expressions "Department" and "Director-General" of the expression "Authority".

5. The following regulations are substituted for regulations ***6*** and 7, respectively, of the Regulations:

"Period of validity

6. The certificates referred to in regulation 2 shall be valid for five years from the date of passing the terminal examination.

Where to apply

7. Candidates wishing to apply for admission to the certificate courses referred to in regulation 3(2) must apply at the approved institutions notified from time to time by marine notice.".

6. The following regulations are substituted for regulations 9 and 10, respectively, of the Regulations:

"Syllabuses for courses

9. The syllabuses for the certificate courses referred to in regulation 3(2) are given in the *Code for South African Maritime Qualifications,* published by the Authority.".

Title

10. These regulations are called the Merchant Shipping (Medical Training) Regulations, 1992.".

7. The Regulations are amended by the deletion of Annexures 1 to **4.**

ANNEX 3

(Regulation 46)

AMENDMENT OF MERCHANT SHIPPING (TRAINING AND CERTIFICATION) REGULATIONS, 1999

1. In this Annex "the Regulations" means the Merchant Shipping (Training and Certification) Regulations, 1999, published by Government Notice No. 1547 of 30 December 1999, as amended by Government Notices Nos. R. 502 of 26 April 2002 and 1196 and 1197 of **15** October 2004.

2. Regulation 1 of the Regulations is amended —

(a) by the substitution in subregulation (1) for the definition of "fishing vessel" of the following definition:

> '"fishing vessel' means a vessel that is used wholly or principally for the taking, catching or capturing of fish or other living resources of the sea or seabed for financial gain or reward;";

(b) by the substitution in subregulation (1) for the definition of "GT" of the following definition:

> "'GT', in relation to a ship, means its gross tonnage calculated in accordance with the Tonnage Regulations, 1986;";

(c) by the insertion in subregulation (1) after the definition of "IGC Code" of the following definition:

> '"length' has the same meaning as in regulation 2 of the Tonnage Regulations, 1986;"; and

(d) by the insertion in subregulation (1) after the definition of "unlimited voyage" of the following definition:

> '"valid', in relation to a certificate or other document, means a certificate or document that is current and that has not been suspended or cancelled;".

3. Regulation **2** of the Regulations is amended —

(a) by the substitution for subregulation (1) of the following subregulation:

> "(1) These regulations prescribe the conditions to be met and the standards of competence required for the issue of the certification described in subregulations **(3)** to (7).";

(b) by the substitution for the words preceding paragraph (a) of subregulation (2) of the following words:

> "**A** person is qualified as a master, ship's officer or rating for the purposes of the Act and entitled to serve in the capacity and perform the functions involved at the level of responsibility specified in his or her certificate on a ship of the type,

tonnage and power and means of propulsion so specified while engaged on the particular voyage concerned, if—";

(c) by the substitution for subparagraph (iii) of subregulation (2)(a) of the following subparagraph:

"(iii) a valid certificate as such, issued by or on behalf of the government of another country, and has been authorized under section 83(1) of the Act to serve in the capacity concerned; and"; and

(d) by the substitution for subparagraph (iv) of subregulation (2)(b) of the following subparagraph:

"(iv) any other certificate issued by or on behalf of the government of another country which, in the opinion of the Authority, qualifies the person to serve in the capacity concerned.".

4. Regulation 47 of the Regulations is amended by the substitution for paragraph (a) of the following paragraph:

"(a) completed at least three months' sea service or port operations service on ships of any tonnage; and".

5. Regulation 50 of the Regulations is amended by the substitution for paragraph (b) of the following paragraph:

"(b) completed at least three months' sea service in the catering department on ships of the following kind:

(i) ships (other than fishing vessels) of 100 GT or more on unlimited or near-coastal voyages;

(ii) fishing vessels of 24 metres or more in length.".

6. The following regulation is substituted for regulation 60 of the Regulations:

"Fishing certification endorsements

60. (1) (a) Subject to subregulation (3), the holder of a certificate of competency specified in column 1 of an item in the following table may apply to the Authority for the endorsement specified in column 2 of the item:

Item	Column 1	Column 2
	Certificate of competency	*Endorsement in terms of these regulations*
1	Skipper (Fishing ≥ 24 metres)	Master of a ship of less than 500 GT on near-coastal voyages
2	Deck Officer (Fishing < 24 metres)	Chief mate/officer in charge of a navigational watch on ships of less than 500 GT on near-coastal voyages

Item	Column 1	Column 2
	Certificate of competency	*Endorsement in terms of these regulations*
1 3	Skipper (Fishing < 24 metres)	Master of a ship of less than 100 GT on near-coastal voyages
		Master of a ship of less than 200 GT operating within a port operations area
Note: The certificates listed in column 1 do not include the certificates issued in terms of regulation 4(2) of the Merchant Shipping (Training and Certification) (Fishing and Marine Motorman) Regulations, 2005.		

(b) The application shall be accompanied by—

(i) documentary proof that the applicant has been assessed at level 3 in practical knowledge covering the subjects naval architecture, business law, personnel management, and ship's power plant, at the level appropriate to the endorsement concerned; **and**

(ii) the relevant supplementary documents specified in the annex.

(2) (a) Subject to subregulation (3), the holder of a certificate of competency specified in column 1 of an item in the following table may apply to the Authority for the endorsement specified in column 2 of the item:

Item	Column 1	Column 2
	Title of certificate ofcompetency	*Endorsement in terms of these regulations*
1	Fisherman Grade 2	Master of a ship of less than 500 GT on near-coastal voyages
2	Fisherman Grade 3	Chief mate/officer in charge of a navigational watch on ships of less than 500 GT on near-coastal voyages
3	Fisherman Grade 4	Master of a ship of less than 100 GT on near-coastal voyages
		Master of a ship of less than 200 GT operating within a port operations area
4	Fisherman Grade 4 (Skipper)	Master of a ship of less than 100 GT on near-coastal voyages
		Master of a ship of less than 200 GT operating within a port operations area
Note: The certificates listed in column 1 include the equivalent certificates issued in terms of regulation 4(2) of the Merchant Shipping (Training and Certification) (Fishing and Marine Motorman) Regulations, 2005.		

(b) The application shall be accompanied by—

(i) documentary proof that the applicant has—

(aa) passed, at an accredited institution, the theoretical examinations in the subjects naval architecture, business law, and personnel management, at the levels, respectively, of master (coastal) for the fisherman grade 2, mate (coastal) for the fisherman grade 3, and skipper (coastal) for the fisherman grade 4 and fisherman grade 4 (skipper); and

(bb) been assessed at level 3 in practical knowledge covering the subjects referred to in item (aa), at the level appropriate to the endorsement concerned; and

(ii) the relevant supplementary documents specified in the annex; however, if the applicant produces documentary proof of having successfully completed a fishing course that has been certified by the examiner as equivalent to the course contemplated in the annex, the Registrar shall accept such documentary proof instead of the relevant document specified in the annex.

(3) An endorsement issued in terms of subregulation (1) or (2) shall have effect only in relation to ships of the following kind:

(a) diamond mining vessels;

(b) fishery research and patrol vessels;

(c) pollution patrol and combating vessels;

(d) tugs, dredgers, hoppers or self-propelled floating cranes;

(e) seismic or oceanographic survey vessels.".

7. Regulation 71 of the Regulations is amended by the repeal of subregulations (2) and (3).

ANNEX 4

(Regulation 46)

AMENDMENT OF MERCHANT SHIPPING (SAFE MANNING) REGULATIONS, 1999

1. In this Annex "the Regulations" means the Merchant Shipping (Safe Manning) Regulations, 1999, published by Government Notice No. **1548** of 30 December 1999, as amended by Government Notices Nos. R. *501* of 26 April 2002 (as corrected by Government Notice No. R. 893 of 28 June 2002) and R. 545 of 30 April 2004.

2. Regulation 1 of the Regulations is amended—

(a) by the insertion in subregulation (1) after the definition of "certificated" of the following definition:

> "'chiefengineer'means the senior engineer officerresponsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installation of a ship;";

(b) by the deletion in subregulation (1) of the definition of "defined fishing zone";

(c) by the substitution in subregulation (1) for the definition of "fishing vessel" of the following definition:

> "'fishing vessel' means a vessel that is used wholly or principally for the taking, catching or capturing of fish or other living resources of the sea or seabed for financial gain or reward;";

(d) by the insertion in subregulation (1) after the definition of "length" of the following definitions:

> "'limited waters', in relation to a fishing vessel, has the same meaning as in regulation 2(1) of the Merchant Shipping (Training and Certification) (Fishing and Marine Motorman) Regulations, 2005;
>
> 'mate' means the deck officer next in rank to the master and upon whom the command of the ship will fall in the event of the incapacity of the master;";

(e) by the insertion in subregulation (1) after the definition of "seagoing ship" of the following definition:

> "'second engineer' means the engineer officer next in rank to the chief engineer and upon whom responsibility for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the ship will fall in the event of the incapacity of the chief engineer;";

(f) by the substitution in subregulation (1) for the definition of "the Training and Certification Regulations" of the following definition:

> "'the Training and Certification Regulations'means the regulations under the Act relating to the training and certification of masters and seamen;"; and

(g) by the insertion in subregulation (1) after the definition of "unlimited voyage" of the following definitions:

"'unlimited waters', in relation to a fishing vessel, has the same meaning as in regulation 2(1) of the Merchant Shipping (Training and Certification) (Fishing and Marine Motorman) Regulations, 2005;

'watchkeeping officer' means a ship's officer whose duties include—

(a) if serving in the deck department on a ship, taking charge of a navigational watch on the ship; or

(b) if serving in the engine-room department on a ship, taking charge of an engineering watch on the ship;".

3. The following regulation is substituted for regulation *6* of the Regulations:

"Watchkeeping

6. (1) The owner and the master of every ship, other than a fishing vessel, shall ensure that the watchkeeping principles and arrangements set out in Annex 1 are complied with in relation to the ship.

(2) The owner and the master of every fishing vessel shall ensure that the watchkeeping principles set out in Annex **2** are complied with in relation to the vessel.".

4. The following regulation is substituted for regulation **12** of the Regulations:

"Employment of certificated deck officers on fishing vessels

12. The owner and the master of every fishing vessel shall ensure that there is employed on the vessel in their appropriate capacities the number and description of appropriately certificated deck officers specified in the applicable item of the following table:

Item	Type of voyage	Length of vessel (metres)	Capacity of employment	Appropriate minimum certification and number of persons to be employed	
				Certification	Number
1	Limited waters	< 24	Master	Skipper (Fishing < 24 metres)	1
			Mate	Deck Officer (Fishing < 24 metres)(B)	1(A)
2		≥ 24	Master	Skipper (Fishing ≥ 24 metres)	1
			Mate	Deck Officer (Fishing ≥ 24 metres)	1
			Watchkeeping officer	Deck Officer (Fishing ≥ 24 metres)	1

Item	Type of voyage	Length of vessel (metres)	Capacity of employment	Appropriate minimum certIncation and number of persons to be employed	
				Certification	Number
3	Unlimited waters	< 24	Master	Skipper (Fishing < 24 metres) with Unlimited Waters Command Endorsement	1
			Mate	Deck Officer (Fishing < 24 metres)	1
			Watchkeeping officer	Deck Officer (Fishing < 24 metres)(B)	1
4		≥ 24	Master	Skipper (Fishing ≥ 24 metres) with Unlimited Waters Command Endorsement	1
			Mate	Deck Officer (Fishing ≥ 24 metres)	1
			Watchkeeping officer	Deck Officer (Fishing ≥ 24 metres)	1

Notes:
(A) Not required for vessels < 50 GT going to sea for periods not exceeding 12 consecutive hours.
(B) Or Coastal Skipper (> 9 metres).

5. Regulation 13 of the Regulations is repealed.

6. The following regulation is substituted for regulation 15 of the Regulations:

"Employment of certificated engineer officers on fishing vessels

15. The owner and the master of every fishing vessel shall ensure that there is employed on the vessel in their appropriate capacities the number and description of appropriately certificated engineer officers specified in the applicable item of the following table:

	Propulsion power of vessel (kW)	Capacity of employment	Appropriate minimum certification and number of persons to be employed	
			Certification	Number
1	< 350	Chief engineer	Marine Motorman Grade 2	1
2	≥ 350 but < 750	Chief engineer	Marine Motorman Grade 1	1
		Second engineer	Marine Motorman Grade 2	1
3	≥ 750 but < 2000	Chief engineer	Marine Motorman Higher Grade	1
		Second engineer	Marine Motorman Grade I	1
		Watchkeeping officer	Marine Motorman Grade 2	1(A)
4	≥ 2000	Chiefengineer	Chief Engineer Officer (Fishing)	1
		Second engineer	Marine Motorman Higher Grade	1
		Watchkeeping officer	Marine Motorman Grade I	1

Notes:
(A) Not required on vessels operating in limited waters.

7. Regulation 16 of the Regulations is amended by the substitution for the existing table of the following table:

"Item	Voynge	Tonnage / Length oi ship	Appropriate certification and number of persons to be employed	
			Certification	Number
		Ships other than fishing vessels		
1	Port operations	≥ 25 GT	Restricted Radiotelephone Operator	1
2	Near-coastal	≥ 25 CT but < 300 GT	Restricted Radiotelephone Operator	2
3		≥ 300 GT	GMDSS General Operator	2
4	Unlimited	≥ 25 GT but < *300* GT	Restricted Radiotelephone Operator	2
5		≥ *300* GT	GMDSS General Operator	2
		Fishing vessels		
6	Limited waters within 40 nautical miles offshore	≥ 25 GT	Restricted Radiotelephone Operator (VHF only)	1
7	Limited waters beyond 40 nautical miles offshore	≥ 25 GT	Reshicted Radiotelephone Operator	2
8	Unlimited waters	< 45 metres	Resmcted Radiotelephone Operator	2
9		≥ 45 metres	GMDSS General Operator	2".

8. The following regulation is substituted for regulation 18 of the Regulations:

"Employment of certificated ratings on fishing vessels of 24 metres or more in length

18. The owner and the master of every fishing vessel of **24** metres or more in length shall ensure that there is employed on the vessel in their appropriate capacities the number and description of appropriately certificated ratings specified in the applicable item of the following table:

Item	Number of persons on vessel	Minimum certification and number of persons to be employed		
		Able seaman	Proficient in survival craft	Efficient cook
1	≥ 15 but < 30	1	1	—
2	≥ 30	1	2	1

Notes:
(1) The number of ratings required to be qualified as proficient in survival craft shall be in addition to the number required to be qualified as able seaman.
(2) The certification as able seaman may be the local certification (including the able seaman (fishing) certification) or the certification issued in accordance with the STCW Convention.
(3) The certification as proficient in survival craft may be the local certification or the certification issued in accordance with the STCW Convention.".

9. Regulation 19 of the Regulations is amended—

(a) by the substitution for subparagraph (i) of subregulation (2)(a) of the following subparagraph:

"(i) a valid **Ship** Captain's Medical Training Certificate issued under the Merchant Shipping (Medical Training) Regulations, 1992; or"; and

(b) by the substitution for subparagraph (i) of subregulation (2)(b) of the following subparagraph:

"(i) a valid First Aid at Sea Certificate issued under the Merchant Shipping (Medical Training) Regulations, 1992; or".

10. Regulation 23 of the Regulations is amended—

(a) by the insertion in the table in subregulation (1)(b) after item 20 of the following item:

"Item	Column 1	Column 2	Column 3
	Title of certificate issued before commencement of repealed regulations	Equlvalent certificate or endorsement under repealed regulations	Equivalent certificate or endorsement under Training and Certification Regulations
20A	—	Fisherman Grade 2 with High Seas Command Endorsement	Skipper (Fishing ≥ 24 metres) with Unlimited Waters Command Endorsement";

(b) by the substitution in the table in subregulation (1)(b) for item 21 of the following item:

"Item	Column 1	Column 2	Column 3
	Title of certificate Issued before commencement of repealed regulations	Equivalent certificate or endorsement under repealed regulations	Equlvalent certificate or endorsement under Training and Certification Regulations
21	Skipper of a fishing, sealing or shore-based whaling boat of 100 GT or more	Fisherman Grade 2	Skipper (Fishing ≥ 24 metres)";

(c) by the insertion in the table in subregulation (1)(b) after item 21 of the following item:

"Item	Column 1	Column 2	Column 3
	Title of certificate issued before commencement of repealed regulations	Equivalent certificate or endorsement under repealed reeulations	Equivalent certificate or endorsement under Training and Certification Regulations
21A	—	Fisherman Grade 3 with High Seas Command Endorsement	Deck Officer (Fishing ≥ 24 metres) endorsed: *—Master of a fishing vessel of less than 30 metres in length operating in unlimited waters";*

(d) by the substitution in the table in subregulation (1)(b) for item 22 of the following item:

"Item	Column 1	Column 2	Column 3
	Title of certificate Issued before commencement of repealed regulations	Equivalent certificate or endorsement under repealed regulations	Equlvalent certificate or endorsement under Training and Certification Regulations
22	Mate of a fishing, sealing or shore-based whaling boat of 100 GT or more	Fisherman Grade 3	Deck Officer (Fishing ≥ 24 metres) endorsed: *—Master of afishing vessel of less than 30 metres in length operating in limited waters";*

(e) by the insertion in the table in subregulation (1)(b) after item 22 of the following items:

"Item	Column 1 Title of certificate Issued before commencement of repealed regulations	Column 2 Equivalent certificate or endorsement under repealed regulations	Column 3 Equivalent certincate or endorsement under Training and Certification Regulations
22A	—	Fisherman Grade 4 (Skipper) with High Seas Command Endorsement	Skipper (Fishing < 24 metres) with Unlimited Waters Command Endorsement
22B	—	Fisherman Grade 4 with High Seas Command Endorsement	Skipper (Fishing < 24 metres) with Unlimited Waters Command Endorsement";

(f) by the substitution in the table in subregulation (1)(b) for items 23 to 26 of the following items, respectively:

"Item	Column 1 Title of certificate Issued before commencement of repealed regulations	Column 2 Equivalent certificate or endorsement under repealed regulations	Column 3 Equivalent certificate or endorsement under Training and Certification Regulations
23	Boatswain of a fishing, sealing or shore-based whaling boat of 100 GT or more	Fisherman Grade 4 (Skipper)	Skipper (Fishing< 24 metres)
24	Skipper of a coasting ship or a fishing, sealing or shore-based whaling boat of less than 100 GT	Fisherman Grade 4 (Skipper)	Skipper (Fishing < 24 metres)
25	Mate of a coasting ship or a fishing, sealing or shore-based whaling boat of less than 100 GT	Fisherman Grade 4 (Watchkeeper)	Deck Officer (Fishing< 24 metres)
26	—	Fisherman Grade 4	Skipper (Fishing< 24 metres)";

(g) by the substitution in the table in subregulation (1)(b) for item 29 of the following item:

"Item	Column 1 Title of certificate issued before commencement of repealed regulations	Column 2 Equivalent certificate or endorsement under repealed regulations	Column 3 Equivalent certificate or endorsement under Training and Certification Regulations
29	—	Marine Engineer-Officer Class 3 with Service Endorsement	(a) Second Engineer Officer (< 3 000 kW) endorsed: *—Chief Engineer Officer of a ship of less than 750 kW propulsion power* *—Chief Engineer Officer of a ship of any kilowatt propulsion power operating within a port operations area* (b) Chief Engineer Officer (Fishing)";

(h) by the insertion in the table in subregulation (1)(b) after item 30 of the following item:

"Item	Column 1 Title of certificate Issued before commencement of repealed regulations	Column 2 Equivalent certificate or endorsement under repealed regulations	Column 3 Equivalent certificate or endorsement under Training and Certification Regulations
30A	—	Marine Engineer-Officer Class 4 with Service Endorsement	Chief Engineer Officer (Fishing)";

(i) by the substitution in the table in subregulation (1)(b) for item 31 of the following item:

	Column 1	Column 2	Column 3
"Item	[redacted]itle of certificate issued before commencement of repealed regulations	Equivalent certificate or endorsement under repealed regulations	Equivalent certificate or endorsement under Trainlng and Certification Regulations
31	[redacted]ond Engineer-Officer of a [redacted]sting ship	Marine Engineer-Oflicer Class 4	(a) Engineer Officer endorsed *—Chief Engineer Officer of a ship of less than 1 500 kW propulsion power operating within a port operations area* (b) Second Engineer Officer (Port Operations) (c) Chief Engineer Officer (Fishing)"; and

(j) by the substitution in the table in subregulation (1)(b) for item 35 of the following item:

	Column 1	Column 2	Column 3
"Item	Title of certificate issued before commencement of repealed regulations	Equivalent certificate or endorsement under repealed regulations	Equivalent certificate or endorsement under Training and Certification Regulations
35	Assistant Marine Engineman, under 150 brake horsepower	Marine Motorman Grade 3	Marine Motorman Grade 2".

11. The Regulations are amended by the addition of the following Annex:

"ANNEX 2

(Regulation 6(2))

BASIC PRINCIPLES TO BE OBSERVED IN KEEPING A NAVIGATIONAL WATCH ON BOARD FISHING VESSELS

1 The following principles must be observed to ensure that a safe navigational watch is maintained at all times.

2 The skipper of every fishing vessel must ensure that watchkeeping arrangements are adequate for maintaining a safe navigational watch. Under the skipper's general direction, the officers of the watch are responsible for navigating the fishing vessel safely during their periods of duty, when they will be particularly concerned with avoiding collision and stranding.

3 The basic principles, including but not limited to the following, must be taken into account on all fishing vessels.

4 ***En route* to or from fishing grounds**

4.1 *Arrangements of the navigational watch*

4.1.1 The composition of the watch must at all times be adequate and appropriate to the prevailing circumstances and conditions, and must take into account the need for maintaining a proper look-out.

4.1.2 When deciding the composition of the watch the following factors, *inter alia,* must be taken into account:

.1 at no time is the wheelhouse to be left unattended;

.2 weather conditions, visibility and whether there is daylight or darkness;

.3 proximity of navigational hazards which may make it necessary for the officer in charge of the watch to carry out additional navigational duties;

.4 use and operational condition of navigational aids such as radar or electronic position-indicating devices and of any other equipment affecting the safe navigation of the vessel;

.5 whether the vessel is fitted with automatic steering; and

.6 any unusual demands on the navigational watch that may arise as a result of special operational circumstances.

4.2 *Fitness for duty*

The watch system must be such that the efficiency of watchkeeping personnel is not impaired by fatigue. Duties must be so organized that the first watch at the commencement of a voyage and the subsequent relieving watches are sufficiently rested and otherwise fit for duty.

4.3 *Navigation*

4.3.1 The intended voyage must, as far as possible, be planned in advance taking into consideration all pertinent information, and any course laid down must be checked before the voyage commences.

4.3.2 During the watch course steered, position and speed must be checked at sufficiently frequent intervals, using any available navigational aids necessary to ensure that the vessel follows the planned course.

4.3.3 The officer in charge of the watch must have full knowledge of the location and operation of all safety and navigational equipment on board the vessel, and must be aware and take account of the operating limitations of such equipment.

4.3.4 The officer in charge of a navigational watch must not be assigned or undertake any duties which would interfere with the safe navigation of the vessel.

4.4 *Navigational equipment*

4.4.1 The officers in charge of the watch must make the most effective use of all navigational equipment at their disposal.

4.4.2 When using radar the officer in charge of the watch must bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the applicable regulations for preventing collisions at sea.

4.4.3 In cases of need the officer of the watch must not hesitate to use the helm, engines, and sound and light signalling apparatus.

4.5 *Navigational duties and responsibilities*

4.5.1 The officer in charge of the watch must—

.1 keep watch in the wheel house;

.2 in no circumstances leave the wheelhouse until properly relieved;

.3 continue to be responsible for the safe navigation of the vessel despite the presence of the skipper in the wheelhouse until informed specifically that the skipper has assumed that responsibility and this is mutually understood;

.4 notify the skipper when in any doubt as to what action to take in the interest of safety; and

.5 not hand over the watch to a relieving officer if there is reason to believe that the latter is not capable of carrying out the watchkeeping duties effectively, in which case the skipper must be notified.

4.5.2 On taking over the watch the relieving officer must confirm and be satisfied as to the vessel's estimatedor true position and confirm its intended track, course and speed, and must note any dangers to navigation expected to be encountered during the watch and any traffic in the immediate vicinity.

4.5.3 Whenever practicable a proper record must be kept of the movements and activities during the watch relating to the navigation of the vessel.

4.6 ***Look-out***

4.6.1 A proper look-out must be maintained in compliance with Rule 5 of the International Regulations for Preventing Collisions at Sea, 1972, as set out in the Annex to the Merchant Shipping (Collision, etc) Regulations, 1996. It must serve the purpose of—

.1 maintaining a continuous state of vigilance by sight and hearing as well as by all other available means, with regard to any significant changes in the operating environment;

.2 fully appraising the situation and the risk of collision, stranding and other dangers to navigation; and

.3 detecting ships or aircraft in distress, shipwrecked persons, wrecks and debris.

4.6.2 In determining that the composition of the navigational watch is adequate to ensure that a proper look-out can continuously be maintained, the skipper must take into account all relevant factors, including those described under item 4.1, as well as the following factors:

.1 visibility, state of weather and sea;

.2 traffic density, and other activities occurring in the area in which the vessel is navigating;

.3 the attention necessary when navigating in or near traffic separation schemes and other routeing measures;

.4 the additional workload caused by the nature of the vessel's functions, immediate operating requirements and anticipated manoeuvres;

.5 rudder and propeller control and vessel manoeuvring characteristics;

.6 the fitness for duty of any crew members on call who may be assigned as members of the watch;

.7 knowledge of and confidence in the professional competence of the vessel's officers and crew;

.8 the experience of the officer of the navigational watch and the familiarity of that officer with the vessel's equipment, procedures, and manoeuvring capability;

.9 activities taking place on board the vessel at any particular time, and the availability of assistance to be summoned immediately to the wheelhouse when necessary;

.10 the operational status of instrumentation in the wheelhouse and controls, including alarm systems;

.11 the size of the vessel and the field of vision available from the conning position;

.12 the configuration of the wheelhouse, to the extent such configuration might inhibit a member of the watch from detecting by sight or hearing any external developments; and

.13 any relevant standards, procedures and guidelines relating to watchkeeping arrangements and fitness for duty that have been specified in a marine notice.

4.7 *Protection of the marine environment*

The skipper and the officer in charge of the watch must be aware of the serious effects of operational or accidental pollution of the marine environment, and must take all possible precautions to prevent such pollution, particularly within the framework of relevant international, local and port operations.

4.8 *Weather conditions*

The officer in charge of the watch must take relevant measures and notify the skipper when adverse changes in weather could affect the safety of the vessel, including conditions leading to ice accretion.

5 Navigation with pilot embarked

The presence of a pilot on board does not relieve the skipper or officer in charge of the watch from the duties and obligations for the safety of the vessel. The skipper and the pilot must exchange information regarding navigation procedures, local conditions and the vessel's characteristics. The skipper and the officer in charge of the watch must co-operate closely with the pilot and maintain an accurate check of the vessel's position and movement.

6 **Vessels engaged in fishing or searching for fish**

6.1 In addition to the principles enumerated in item 4, the following factors must be considered and properly acted upon by the officer in charge of the watch:

.1 other vessels engaged in fishing and their gear, own vessel's manoeuvring characteristics, particularly its stopping distance and the diameter of turning circle at sailing speed and with the fishing gear overboard;

.2 safety of the crew on deck;

.3 adverse effects on the safety of the vessel and its crew through reduction of stability and freeboard caused by exceptional forces resulting from fishing operations, catch handling and stowage, and unusual sea and weather conditions;

.4 the proximity of offshore structures, with special regard to the safety zones; and

.5 wrecks and other underwater obstacles which could be hazardous for fishing gear.

6.2 When stowing the catch, attention must be given to the essential requirements for adequate freeboard, adequate stability and watertight integrity at all times during the voyage to the landing port, taking into consideration consumption of fuel and stores, risk of adverse weather conditions and, especially in winter, risk of ice accretion on or above exposed decks in areas where ice accretion is likely to occur.

7 **Anchor watch**

The skipper must ensure, with a view to the safety of the vessel and the crew, that a proper watch is maintained at all times from the wheelhouse or deck on fishing vessels at anchor.

8 Radio watchkeeping

The skipper must ensure that an adequate radio watch is maintained while the vessel is at sea, on appropriate frequencies, taking into account the requirements of the Merchant Shipping (Radio Installations) Regulations, 2002.

EXPLANATORY NOTE

(This note is not part of the regulations)

1 Introduction

1.1 These regulations are enabled by section 356 of the Merchant Shipping Act, 1951 (Act No. 57 of 1951). The regulations repeal and replace the Examination Regulations for Certificates of Competency for Fishermen, 1993, and the Examination Regulations for Certificates of Competency as Marine Motormen, 1993.

1.2 These are the regulation's main objects:

.1 to overhaul existing training and certification arrangements for fishing vessel personnel and certain other engineer officer capacities, particularly with a view to improving the quality of training outcomes and the prospects for career progression;

.2 to introduce the training, certification and watchkeeping standards embodied in the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995 (STCW-F).

2 STCW-F

2.1 STCW-F was adopted in July 1995 by a diplomatic conference convened under the auspices of the International Maritime Organization (IMO). The convention has not yet entered into force because the international community has been slow to accept it; however, this is changing as a result of IMO's ongoing efforts to promote acceptance of the convention amongst its member governments. As a member of the IMO Council, South Africa is expected to support this initiative.

2.2 SAMSA is convinced of the operational benefits of accepting STCW-F and has macle appropriate proposals to Government in this regard. These proposals are still under review. In the meantime, SAMSA is proposing, through the present regulations, to introduce in domestic law the principles and standards embodied in the convention, thereby anticipating its effect and paving the way for South Africa's becoming a party to the convention at the international level.

3 The regulations

3.1 The introduction of STCW-F principles and standards will bring about a significant change in the way fishing vessel personnel are trained and certificated. In the past, extended periods of sea service were seen as the way to acquire experience and appropriate skills. Unfortunately, experience has shown that the fishing industry is not an environment that is conducive to producing quality outcomes from a system of on-the-job training and learning. In contrast, the new system is centred around a combination of reduced experiential training and upgraded and more structured education for enhancing knowledge. The system has been designed in a way that will make it possible for seafarers to progress over time from small vessels to large fishing vessels and, eventually, internationally trading vessels.

3.2 The regulations cover all fishing certification (deck and engine-room departments) and all marine motorman certification (fishing and non-fishing), but do not cover personnel on pleasure vessels of less than 100 gross tonnage or on commercially operated vessels of

less than 25 gross tonnage; these people are covered by the Merchant Shipping (Small Vessel Safety) Regulations, 2002.

3.3 The regulations track STCW-F by using vessel length as a threshold rather than gross tonnage. This applies not only to the various certificated capacities in the deck department but also to all seagoing service requirements. For example, seagoing service is generally required to be gained on vessels of 12 metres or more in length (regardless of gross tonnage).

3.4 The regulations also track STCW-F standards for seagoing service. This results in a significant reduction in the total sea time required for certain certification. For example, the 36 months on vessels of 25 gross tonnage or more currently required for the first deck certificate of competency will be reduced, for the equivalent certificate, to 12 months on vessels of 12 metres or more in length.

3.5 In the deck department STCW-F establishes standards only for masters and deck officers on fishing vessels of 24 metres or more in length, leaving national law to determine the standards for fishing vessels of less than 24 metres in length. For fishing vessels of 24 metres or more in length, the regulations adopt the STCW-F standards for masters and deck officers. For fishing vessels of less than 24 metres in length, the existing standard for Fisherman Grade 4 certification has been expanded and upgraded: for example, under the new system the master of a fishing vessel of less than 24 metres [i.e. Skipper (Fishing < 24 metres)] is required to meet the same educational standard as the officer in charge of a navigational watch on a fishing vessel of 24 metres or more in length [i.e. Deck Officer (Fishing ≥ 24 metres)].

3.6 Similarly, in the engine-room department STCW-F establishes standards only for chief engineer officers and second engineer officers on fishing vessels of 750 kW propulsion power or more, and the regulations adopt these standards. For fishing vessels of less than 750 kW propulsion power, existing standards for Marine Motorman certification have been expanded and upgraded.

3.7 *An* important principle underlying the new system is the facilitation of career progression. This principle finds expression in the facility to gain experience on a range of vessel sizes, thus making it easier to upgrade certification during the course of a seagoing career.

4 The certificates

4.1 The following paragraphs describe the new kinds of Certification. But first here are *two* definitions that help to explain limitations relating to this certification:

*"**limited waters**" means—*

*(a) the internal and territorial waters **of** the Republic;*

*(b) the waters **of** the exclusive economic zone **of** the Republic; and*

*(c) if the Republic has entered into an agreement with another State for the purposes of this paragraph, the waters under the jurisdiction **of** that other State that are covered by the agreement.*

*"**unlinrited waters**" means the waters beyond limited waters.*

4.2 Generally, this is how the waters limitation affects the certification:

.1 Deck Officer certification automatically meets the unlimited waters standard. This means that the holders of this certification may serve in the certificated capacity on fishing vessels operating in limited and unlimited waters.

.2 Skipper certification meets the limited waters standard for command purposes and the unlimited standard for watchkeeping purposes. Holders wishing to command fishing vessels operating in unlimited waters are first required to obtain the Unlimited Waters Command Endorsement.

4.3 ***Deck** department*

4.3.1 **Skipper** Coastal **(> 9 metres).** Although this certification is issued under the Merchant Shipping (Small Vessel Safety) Regulations, 2002, it is mentioned here because the holder may serve as mate on fishing vessels of less than 24 metres in length operating in limited waters or as watchkeeping officer on fishing vessels of less the 24 metres in length operating in unlimited waters. This will allow the holder of small vessel certification to obtain sea time on larger vessels for the purpose of upgrading the Certification.

4.3.2 **Deck Officer (Fishing < 24 metres).** The holder of this certification may serve in the same positions as those described in paragraph 4.3.1, but may also serve as mate on fishing vessels of less than 24 metres in length operating in unlimited waters.

4.3.3 **Deck Officer (Fishing ≥ 24 metres).** The holder of this certification may serve as mate or watchkeeping officer on fishing vessels of 24 metres or more in length operating in limited or unlimited waters. Once the holder gains 12 months sea time as a watckeeping officer, he or she can qualify for the certificate of competency as Skipper (Fishing < 24 metres) without further training or examination, since the education and assessment standards for these certificates are the same.

4.3.4 **Skipper (Fishing < 24 metres).** The education and assessment standards for this certification are the same as those for the certification mentioned in paragraph 4.3.3. The holder of this certification may therefore serve in the same capacities as the holder of certification mentioned in that paragraph. In addition, the holder may also serve as master of a fishing vessel of less than 24 metres in length operating in limited waters. If the holder obtains the Unlimited Waters Command Endorsement, then he or she may serve in the command capacity also on fishing vessels operating in unlimited waters.

4.3.5 **Skipper (Fishing ≥ 24 metres).** The holder of this certification may serve as master of a fishing vessel of any length operating in limited waters, and in any of the other capacities, except as master of a fishing vessel operating in unlimited waters. If the holder obtains the Unlimited Waters Command Endorsement, then he or she may serve in the command capacity also on fishing vessels operating in unlimited waters.

4.3.6 **Unlimited Waters Command Endorsement.** This certification is an endorsement to the certification mentioned in paragraphs 4.3.4 and 4.3.5. It allows the holder to command a fishing vessel (of the length stated in the certification to which the endorsement relates) operating in unlimited waters.

4.3.7 **Able Seaman (Fishing).** This certification can be obtained by a rating and entitles the holder to form part of a navigational watch on a fishing vessel. The holder can convert the certification to the STCW'78 Able Seaman certification by completing additional seagoing service on trading vessels.

4.3.8 For holders of the certification as Skipper (Fishing < 24 metres), Deck Officer (Fishing ≥ 24 metres) and Skipper (Fishing ≥ 24 metres), it is now also possible to obtain equivalent certification for certain kinds of non-fishing vessels without any requirement for additional training or sea time. However, holders of certification obtained under, or converted from, the old system will still be required to do bridging courses in order to obtain these equivalences. These arrangements provide the path for the holder of fishing certification to obtain the STCW'78 Deck Officer certification, after meeting the educational and other requirements in terms of the Merchant Shipping (Training and Certification) Regulations, 1999.

4.4 *Engine-room department*

4.4.1 **Marine Motorman Grade 2.** The holder of this certification may serve in the following capacities:

.1 chief engineer officer of a fishing vessel of less than *350* kW propulsion power;

.2 second engineer officer of a fishing vessels of less than 750kW propulsion power;

.3 watchkeeping officer on fishing vessels of less than 2 000 kW propulsion power.

4.4.2 **Marine Motorman Grade 1.** The holder of this certification may serve in the following capacities on fishing vessels:

.1 chief engineer officer of a fishing of less than 750 kW propulsion power;

.2 second engineer officer of a fishing vessel of less than 2 000 kW propulsion power;

.3 watchkeeping officer on fishing vessels of any kilowatt propulsion power.

4.4.3 **Marine Motorman Higher Grade.** The holder of this certification may serve as chief engineer officer of a fishing vessel of less than 2 000 kW propulsion power or as second engineer officer of a fishing vessel of any kilowatt propulsion power.

4.4.4 **Chief Engineer Officer (Fishing).** The holder of this certification may serve as chief engineer officer of a fishing vessel of any kilowatt propulsion power.

4.4.5 In addition to the capacities mentioned in paragraphs 4.4.2 and 4.4.3, the holders of certification as Marine Motorman Grade 1 or Marine Motorman Higher Grade may also serve in the other (non-fishing) capacities specified in the Merchant Shipping (Safe Manning) Regulations, 1999.

4.4.6 These arrangements provide a path for persons with the lowest qualification to upgrade the qualifications over time. Holders of the Marine Motorman Higher Grade certification now also have the opportunity to obtain the STCW'78 Engineer Officer certification, after meeting the educational and other requirements of the Merchant Shipping (Training and Certification) Regulations, 1999.

4.5 In summary, the new certification system reduces the number of examinations and reduces significantly the seagoing service requirements for the first deck officer certificate. However, these changes are balanced by a higher standard of education for all certification.

5 Revalidation and conversion

5.1 The regulations introduce revalidation requirements for all new certificates of competency and all equivalent existing certificates. Existing certificates will have to be revalidated and exchanged within five years after the commencement of the regulations (unless **SAMSA** requires them to be exchanged within a shorterperiod), and every five years thereafter. New certificates will have to be revalidated at five yearly intervals. Information about revalidation arrangements will be published by marine notice (e.g. Marine Notice No. 5 of 2000 covers revalidation of STCW'78 certification).

5.2 Equivalency, revalidation and conversion arrangements will not result in the downgrading of any certification. For example, Fisherman Grade **3** certification is taken to be equivalent to certification as Deck Officer (Fishing ≥ 24 metres) endorsed "master of a fishing vessel of less than **30** metres in length operating in limited waters".

6 Examinations and syllabuses

6.1 The new examination policy tracks the policy already in place for STCW'78 certification. This means that **SAMSA** will no longer conduct written examinations for fishing and marine motorman certification; instead, these will be conducted by accredited maritime training providers. **SAMSA** will retain oversight through the accreditation and approval system to ensure that providers meet the relevant standards in the regulations and the *Code for South African Maritime Qualifications* ("the Code"). Responsibility for level **3** assessment (i.e. oral examination) will remain with **SAMSA,** as for STCW'78 certification.

6.2 The new syllabuses, which will be added to the Code, require a higher standard of competence than those under the current regulations. **A** significant change has been made with the introduction of Fishing Technology as a subject. There is also more emphasis and expanded content on ship stability, particularly for certification relating to vessels of 24 metres or more in length. The modules on human relations and business have also been expanded, and Morse Code by light has been scrapped from all certification, except the Unlimited Waters Command Endorsement.

6.3 For ancillary courses (e.g. fire-fighting), standards have been kept common wherever possible. This also facilitates the transportability of these qualifications between fishing and other operations. However, in certain cases, such as proficiency in survival craft, additional sea time on trading vessels **may** be required to obtain the full STCW'78 qualification.

PART B
DRAFT STUDY MATRICES AND SYLLABUSES

This Part sets out the study matrices and syllabuses that will be incorporated into the *Code for South African Maritime Qualifications*.

Contents

STUDY MATRICES

FISHING CERTIFICATION (DECK DEPARTMENT)

(Subject mo ules shown under certification columns)

Certification / Subject	Unlimited Waters Command Endorsement	Skipper (Fishing ≥ 24 metres)	Skipper (Fishing < 24 metres) / Deck Officer (Fishing ≥ 24 metres)	Deck Officer (Fishing < 24 metres)	Able Seaman (Fishing)
Chartwork	1-5	1-4	1-3	1	—
Celestial Navigation	1	—	—	—	—
Electronic Navigation Systems	1-2	1-2	1-2	1	—
Naval Architecture	1-5	1-5	1-4	1-2	—
Ship's Power Plant	1	1	1	—	—
Personnel Management and Ship's Business	1-6	1-6	1-2 and 6	1	—
Meteorology	1-2	1	1	—	—
Ship Manoeuvring and Handling	1-2	1-2	1	—	—
Fishing Technology	1-2	1-2	1-2	1	1-2
Emergency Procedures	1-2	1-2	1-2	1	—
Communications	2	1	1	1	—
Proficiency in Survival Craft (Local)	X	X	X	—	X
Proficiency in Liferafts	—	—	—	X	—
First Aid at Sea	—	—	X	X	X
Ship Captain's Medical Training	X	X	—	—	—
Fire-fighting	X	X	X	X	X
Advanced Fire-fighting	X	X	X	X	—
Pre-sea Training	—	—	X	X	X
Radiotelephony	—	X	X	X	—
GMDSS	X		—	—	—
Medical certificate	X	X	X	X	X
Eyesight certificate	X	X	X	X	X

MARINE MOTORMAN / CHIEF ENGINEER OFFICER (FISHING) CERTIFICATION

(Subject modules shown under certification columns)

Certification / Subject	Marine Motorman Grade 2	Marine Motorman Grade 1	Marine Motorman Higher Grade	Chief Engineer Officer (Fishing)
Naval Architecture	—	1-2	1-4	—
Personnel Management and Ship's Business	1	1-3	1-4	—
Engineering Knowledge	1	1-2	3	—
Emergency Procedures	1	1	1-2	1-2
Fishing Technology	—	1-2	—	1-2
Electrotechnology	—	—	—	1
Applied Marine Science	—	—	—	1
Drawings	—	—	—	1
General Engineering Science / Applied Mechanics	—	—	—	1
Heat Engines / Thermodynamics	—	—	—	1-2
Proficiency in Survival Craft (Local)	—	—	X	X
Proficiency in Liferafts	X '	X	—	—
First Aid at Sea	X	X	X	X
Fire-fighting	—	X	X	X
Advanced Fire-fighting	—	—	X	X
Pre-sea Training	X	X	—	—

WORKSHOP TRAINING (MARINE MOTORMAN GRADE 1)

Certification / Subject	Marine Motorman Grade 1
Diesel	X
Electrical	X
Fitting	X
Machining	X
Welding, Cutting and Sheet Metal	X
Hydraulics	X
Pneumatics	X
Refrigeration	X

SYLLABUSES

CHARTWORK (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 1		
Plan and conduct a safe coastal passage	1 Ability to determine the ship's position on a chart by the use of: .1 latitude and longitude. .2 simultaneous cross bearings (using compass, true or gyro bearings), transit bearings, by bearing and range, multiple ranges and relative bearings. .3 positional information from aids to navigation, including lighthouse, beacons, buoys and electronic navigation systems or by any use of the above. .4 dead reckoning, taking into account estimated speed. 2 Understands the terms "Deviation" and "Variation". 3 Ability to determine safe courses between two positions on a chart and converting true courses into magnetic and compass courses and vice versa and making due allowance for gyro error. 4 Ability to monitor a passage along a planned route. 5 Determining an ETA taking into account speed. 6 Ability to demonstrate thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, especially annexes II and IV concerned with safe navigation. 7 Ability to demonstrate knowledge of keeping a navigational watch as prescribed in the STCW-F Convention.	By oral Examination, completion of approved education and training, written theoretical examination and assessment of evidence obtained from one or more of the following: 1 approved in-service experience 2 approved training ship experience 3 approved simulator training, where appropriate 4 approved laboratory equipment training, Using, amongst others, chart catalogues, charts (including lattice and pilot charts), deviation tables, navigational publications, radio navigational warnings, azimuth mirror, electronic navigation equipment, echo sounding equipment, compass, gyro compass, tide tables. *Note:* (i) ECDIS systems are considered to be included under the term "charts" (ii) The charts, notices to mariners and tide tables used at this level are those published by the Hydrographer of the SA Navy. Thorough knowledge of Collision Regulations by oral exams and use of small models displaying proper signals or lights or by the use of a navigation light simulator. Thorough knowledge of keeping a navigational watch as detailed in Chapter IV of the STCW-F Convention.	1 The information obtained from navigational charts and publications is relevant, interpreted correctly and properly applied. All potential navigational hazards are accurately identified. 2 The primary method of fixing the ship's position is the most appropriate to the prevailing circumstances and conditions. 3 The reliability of the information obtained from the primary methods of position fixing is checked at appropriate intervals. 4 The charts selected are the largest scale suitable for the area of navigation and charts and publications are corrected in accordance with the latest information available. 5 The degree of precision required: .1 work to a degree of precision consistent with the data available and the type of problem in question taking into account the limits of acceptable instrument/system errors. .2 information from tables shall be extracted as accurately as possible consistent with the inherent accuracy of the tables, and final answers shall be given to the best degree of precision which is justified. .3 Ship's position shall be given within a maximum of one half of a nautical mile. .4 in the calculation of compass errors, bearings and courses, the answer shall be given to the nearest whole degree. .5 tidal calculations are required to be within 15cm of a precise result.

CHARTWORK (FISHING)			
COLUMN 1	**COLUMN 2**	**COLUMN 3**	**COLUMN 4**
COMPETENCE	**KNOWLEDGE, UNDERSTANDING AND PROFICIENCY**	**METHODS FOR DEMONSTRATING COMPETENCE**	**CRITERIA FOR EVALUATING COMPETENCE**
MODULE 2			
1 Plan and conduct a safe coastal passage	1 Ability to determine a safe course when: .1 approaching a harbour, bay, river mouth or safe anchorage; and .2 making a land fall in thick and clear weather.	As for module 1, using, in addition to the items described in module 1, the IALA buoyage system.	As for module 1.
2 Thorough knowledge of and ability to use navigational charts and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings and ship's routing information	2 Ability to determine compass error, deviation and/or gyro error using transit bearings.		
3 Ability to maintain navigational charts and nautical publications from information contained in notice to mariners	3 Ability to plan a coastal passage and entry into harbour.		
4 Understand the broad principles and use of conventional magnetic and gyro compasses	4 Dead reckoning, taking into account winds, tides, current and estimated speed.		

CHARTWORK (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 3		
Plan and conduct a safe coastal passage	1 Ability to determine, the effect of current and leeway on course and speed, the course to steer to make good a certain track (making due allowance for current and leeway), the set and rate of a current and the distance at which the ship will pass off a given point. 2 Ability to determine the compass error and deviation using the bearing of the sun at any time. 3 Ability to determine and use dipping distances of lights and distances of sighting points of land of known height. 4 Ability to determine the time and height of height and low water at Ports using South African Tide Tables. 5 Ability to determine the time the tide reaches a specified height or the height of a tide at a given time using tables and tide curves. 6 Ability to determine and use nautical tables to find courses and distances between two positions by Mercator sailing method or traverse tables.	As for module 1, using, in addition to the items described in module 1, South African Tide Tables and nautical tables (Nories or Burtons).	As for module 1.

CHARTWORK (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
MODULE 4			
Plan and conduct a safe passage	1 Ability to determine: .1 the time and height of high and low water using the South African Tide Tables, .2 the time the tide reaches a specified height or the height of a tide at a given time using tables and tide curves. .3 and thence the approximate correction to be applied to soundings or to chartered heights of shore objects. 2 Ability to determine the ship's position on a chart using: .1 bearings of one or more objects with the run between allowing for a current. .2 position lines obtained by any method, including terrestrial position lines. 3 Understand the siting of the magnetic compass with reference to proximity of magnetic material and electrical appliances and the precautions to be taken with electric wiring in the vicinity of the compass.	As for module 1, using, in addition to the items described in modules 1, 2 and 3, notices to mariners, tide tables and other navigational publications.	1 As for module 1. 2 Organizing the bridge watch into the most effetive team to afford the safest navigation for the ship.

CHARTWORK (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 6		
Plan and conduct a safe passage	1 Ability to determine: .1 the time and height of high and low water using the Admiralty tide Tables Volumes I and II , .2 the time the tide reaches a specified height or the height of a tide at a given time using tables and tide curves, .3 and thence the approximate correction to be applied to soundings or to chartered heights of shore objects. 2 Ability to determine the ship's position on a chart using: .1 bearings of one or more objects with the run between allowing for a current. .2 position lines obtained by any method, including terrestrial and celestial position lines. 3 Ability to determine the compass error and deviation using the bearing of celestial objects including the sun, moon, planets and stars as listed in the Nautical Almanac at any time.	As for module 1, using, in addition to the items described in modules 1, 2, 3 and 4, notices to mariners, tide tables and other navigational publications.	1 As for module 1. 2 Organizing the bridge watch into the most effective team to afford the safest navigation for the ship.

CELESTIAL NAVIGATION (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 1		
Determine position	1 Understands the terms poles, equator, meridians, parallels of latitude, difference of latitude, difference of longitude, departure, mean latitude, difference of meridional parts, and their use and the relationship between them. 2 Ability to determine course and distance using the traverse method and/or plane and Mercator sailing. 3 Understands the relationship between GMT, LMT, longitude, zone time and standard time. 4 Ability to alter ship's time with change of longitude and rate a chronometer. 5 Ability to determine: .1 the latitude by meridian altitude of the Sun or Venus .2 from a sextant-observation of a heavenly body near or out of the meridian, the direction of the position line and a position through which it passes .3 the ship's position using position lines obtained from two or more celestial observations, with or without a run 6 Ability to use the sextant, determine its index error and reduce the index error to an acceptable error. 7 Ability to pre-compute the approximate time (to the nearest minute) of the meridian passage of a heavenly body and the rising and setting times of the sun and the moon.	By written theoretical examination, completion of approved education and training and assessment of evidence obtained from one or more of the following: 1 approved in-service experience 2 approved training ship experience 3 approved simulator training, where appropriate 4 approved laboratory equipment training. Using sextant, almanac, sight reduction tables, star identifier, navigational tables (Nories or Burtons), pocket scientific calculator. *Note:* (i) Heavenly body in this unit means the Sun, the Moon and stars listed in the nautical almanac. (ii) Air navigation tables are allowed to be used for star sights.	The degree of precision required: 1 work to a degree of precision consistent with the data available and the type of problem in question taking into account the limits of acceptable instrument/ system errors 2 information from tables shall be extracted as accurately as possible consistent with the inherent accuracy of the tables, and final answers shall be given to the best degree of precision which is justified 3 problems may be solved by any method, provided that such method is correct in principle and affords the required degree of precision 4 calculations used to obtain a position line shall be capable of giving an answer to within or maximum of one half of a nautical mile 5 when making calculations to obtain a ship position, calculations are to be to 0,5 of a minute of arc and to the nearest second of time.

ELECTRONIC NAVIGATION SYSTEMS (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 1		
1 Use of echo sounders	1 Understands the basic principles of ship borne echo sounders. Types in use at sea. The principle components of general purpose echo sounding equipment. Precautions to be observed in use and accuracy to be expected	1 During the training establishment phase. Evidence obtained by attending an approved course or: .1 by written examination of the theoretical knowledge; and .2 by assessment of approved simulator training. 2 Using: .1 live and simulated radar, satellite navigator (GPS and DGPS), and electronic log; .2 Charts, equipment manuals and error diagrams/tables.	1 Information obtained from manuals and error diagrams/ charts is correct, accurate and properly applied. 2 Positions are determined within the limits of acceptable instrument/systems errors. 3 Categorize the usefulness of the systems in terms of the areas - oceanic, landfall, coastal and estuarial. 4 Information obtained from radar is correctly interpreted and analysed taking into account the limitations of the equipment and prevailing circumstance and conditions. 5 Action to avoid a close encounter or col-lision with other vessels is timely and in accordance with the International Regulations for Preventing Collisions at Sea.
2 Use speed logs	2 Understands the basic principles of ship borne logs. Types in use at sea. The principle components of general purpose logs. Precautions to be observed in use and accuracy to be expected		
3 Use of GNSS	3 Understands and describes the basic principles of satellite navigation systems. Typical receivers in use on board ships. Corrections and expected accuracy. Coverage areas. Differential Systems.		
4 Operate basic radar equipment	4 Understands the basic principles of radar. Describes the basic radar installation. Identification of controls. Understand factors affecting performance and accuracy.		
5 Use radar for collision avoidance	5 Understands the principle and construction of a radar plot. Use of plot to obtain information about targets. Assessment of collision risk. Effect of alteration of courses and speed in relation in relation to collision avoidance. Radar reporting procedures. Application of collision regulations in restricted visibility		
6 Use of radar as an aid to navigation	6 Able to detect and recognise fixed targets. Sources of error in positions obtained. Use of radar for navigation in confined and coastal waters using blind pilotage techniques.		

ELECTRONIC NAVIGATION SYSTEMS (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
7 Use of electronic plotters/ECDIS as an aid to navigation	Understands and describes the basic principles of electronic plotters and ECDIS systems.		

ELECTRONIC NAVIGATION SYSTEMS (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
MODULE 2			
Conduct a ... passage using radar	Ability to operate and to interpret and analyse information obtained from radar, including the following: .1 performance, including: .1 factors affecting performance and accuracy; .2 setting up and maintaining displays; .3 detection and misrepresentation of information, false echoes, sea return etc, racons and SARTs; and .2 use, including: .1 range and bearing; course and speed of other ships; time and distance of closest approach of crossing, meeting overtaking ships; .2 identification of critical echoes; detecting course and speed changes of other ships, effect of changes in own ship's course or speed or both; .3 application of the International Regulations for Preventing Collisions at Sea; .4 plotting techniques and relative motion concepts; .5 blind pilotage techniques.	1 During the training establishment phase. Evidence obtained by attending an approved course or: .1 by written examination of the theoretical knowledge; and .2 by assessment of approved simulator training. 2 Using: .1 radar simulation; .2 charts, equipment manuals and error diagrams/tables; .3 the collision regulations, notices to mariners, marine notices, Safety of Navigation Regulations, and radar performance specifications (IMO and marine notice); .4 case studies from courts of marine enquiry and MARS reports. As for module 1.	1 Information obtained from radar is correctly interpreted and analysed taking into account the limitations of the equipment and prevailing circumstance and conditions. 2 Action to avoid a close encounter or collision with other vessels is timely and in accordance with the International Regulations for Preventing Collisions at Sea.

NAVAL ARCHITECTURE (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	**KNOWLEDGE, UNDERSTANDING AND PROFICIENCY**	**METHODS FOR DEMONSTRATING COMPETENCE**	**CRITERIA FOR EVALUATING COMPETENCE**
	MODULE 1		
Small vessel construction and stability	1 Able to name the principal parts and fittings of a fishing vessel including: bow, stern, stern, bulwarks, hull, hatch, access, rudder, propeller, superstructure, hull valves, grid cooler, masts etc. 2 Understands: .1 reasons for making the deck and superstructure watertight; .2 purpose of watertight bulkheads and the collision bulkhead; .3 reason for a hull survey, the items surveyed at the hull survey and the period between surveys for the issue of a local general safety certificate; .4 drawing the propeller shaft(s) and the opening of hull fittings and the period between the inspect of these items; .5 relationship between centre of gravity, centre of buoyancy and metacentric heigh; .7 conditions of: .1 stiff ship; .2 tender ship; .3 free surface effect and the dangers associated with them; .8 reasons for having efficient means of drawing water rapidly from the deck and the danger of water trapped on deck; .9 reasons for stowing heavy cargo items below and lighter items on top; .10 purpose of free board and reserve buoyancy; .11 meaning of the terms displacement, deadweight and gross tonnage. 3 Knows the danger of stowing cargo on deck only with nothing below.	By oral examination, completion of approved education and training, written theoretical examination and assessment of evidence obtained from one or more of the following: 1 approved in-service experience; 2 approved training ship experience; 3 approved simulator training, where appropriate; 4 approved laboratory equipment training.	1 The safe operating limits of the ship are not exceeded in normal operations. 2 The ship is always properly stowed ensuring that she is always safe. 3 Able to deliver clear and understandable reports issuing ship construction terminology. 4 The ship is always securely battened down for proceeding to see and severe weather conditions. 5 Bilge pumping systems are properly operated. 6 Fire mains are properly operated.

NAVAL ARCHITECTURE (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 2		
Basics of ship dimensions and form	1 Understands the names and principal parts of a ship. 2 Illustrates the general arrangement of common ship types found in the fishing fleet. 3 Describes by means of a diagram: .1 a bilge pumping system; .2 a fire main; .3 a steering system. 4 Understands the need to maintain the watertight integrity of the vessel and can describe the methods of maintaining the following: .1 hatch covers; .2 watertight doors; .3 sounding pipes and vents; .4 offal chutes; .5 scuppers and freeing ports.	As for module 1.	As for module 1.

NAVAL ARCHITECTURE (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 3		
1 Flotation and displacement	1.1 Understands the relationship between the mass of a ship and the volume of water displaced by the hull form and that volume changes with charged in mass of ship. 1.2 Defines: .1 displacement (light and load displacement); .2 deadweight. 1.3 Able to calculate the displacement of a ship. 1.4 Able to use: .1 displacement/draught curve; .2 deadweight curve/scale.	As for module 1.	As for module 1.
2. Buoyancy and reserve buoyancy	2 Describes: 1 buoyancy; 2 the relationship between force of buoyancy and displacement; 3 reserve buoyancy, its importance and the relationship between it and freeboard.		
3 Fundamental statical stability, assessment of initial stability and the curve of statical stability	3.1 Defines: centre of gravity; centre of buoyancy; metacentre; metacentric height; righting lever; righting moment. 3.2 Describes: .1 stability as the ability of the ship to return to an upright position after being heeled by an external force; .2 how the value of GM is a useful guide to the stability of the ship; .3 with the aid of diagrams, a stable and unstable ship and the position of positive, negative and zero GM; .4 with the aid of diagrams, the relationship between the righting lever, righting moment for small and large angles of heel; .5 a capsizing moment; .6 angle of loll and rolling about an angle of loll; .7 ability to interpret various stability conditions from a stability book or a set of pre-calculated stability conditions.		

NAVAL ARCHITECTURE (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
4 Movement of the centre of gravity	4 Describes, with the aid of diagrams, the movement of G when a mass is: - added (loaded) - removed (discharged) - moved within the ship - suspended (from a derrick hook)		

NAVAL ARCHITECTURE (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 4		
1 Construction of specific parts of hull structure	1.1 Identifies the structural components of a ship's hull on ships' plans and drawings. Includes items such as frames, floors, beams, knees, brackets, shell plating, decks, bulkheads, pillars, hatch girders, coamings, bulwarks, cant beams and breast hooks 1.2 Identifies longitudinal, transverse and combined systems of framing on transverse sections of ships. 1.3 Illustrates: .1 double-bottom structure for longitudinal and transverse framing; .2 bilge structure; .3 different keel structures; .4 connection of superstructures to the hull at the ship's side 1.4 Sketches: .1 different deck edge connections; .2. deck-freeing arrangements,; .3 a plane and corrugated bulkhead, showing connections to deck, sides and double bottom and the arrangement of stiffeners. 1.5 Describes the stress concentration in the deck round hatch openings. 1.6 Understands why transverse bulkheads have vertical corrugations and fore-and-aft bulkheads have horizontal ones. 1.7 Explains compensation for loss of strength at hatch openings. 1.8 Describes and illustrates: .1 the purpose of bilge keels and how they are attached to the ship's side; .2 the provision of additional structural strength to withstand pounding and panting; .3. function of the stern frame and stern; .4 the transom stern, showing the connections to the stern frame. .9 Understands why the shaft tunnel must be of watertight construction and how water is prevented from entering the engine-room if the tunnel becomes flooded.	As for module 1.	As for module 1.

NAVAL ARCHITECTURE (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
2 Structure and attachment of various hull fittings	2.1 Describes and sketches: .1 a fishing vessel's arrangements of modern weather-deck mechanical steel hatches; .2 showing how watertightness is achieved at the coamings and cross joints where applicable. 2.2 Sketches and describes typical forecastle mooring and anchoring arrangements including the leads of moorings, rollers, multi-angle, pedestal and Panama fairleads. 2.3 Describes: .1 winch to deck connection; .2 anchor handling and securing arrangements from hawse pipe to spurling pipe; .3 watertightness of spurling pipe; .4 construction of chain lockers and securing of cables; .5 construction and use of a cable stopper. 2.4 Describes and sketches: .1 the bilge pumping system of a fishing vessel with screw-down non-return suction valves, strum boxes and sounding pipe arrangements; .2 a bilge/ballast system in a fishing vessel and the necessity of fitting air pipes to ballast and fuel tanks; .3 a fire main and states what pumps may be used to pressurize it. 2.5 Describes and sketches: .1 modern rudders: semi balanced, balanced and spade; .2 the connection of the rudder to the ship; .3 how the weight of the rudder is supported; .4 how watertight integrity is maintained about the stock/hull.		

NAVAL ARCHITECTURE (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 5		
1 Movement of centre of gravity	1.1 Describes: .1 with the aid of diagrams, the movement of G when a mass is: - added (loaded); - removed (discharged); - moved within the ship; - suspended (from a derrick hook); .2 with the aid of diagrams, a stable and unstable ship and the position of neutral equilibrium (positive, negative and zero GM); .3 a "stiff" and "tender" ship; 1.2 Describes: .1 with the aid of diagrams, the relationship between stability, the righting lever and righting moment for small and large angles of heel lever (uses the positions of G, B, M and Z); .2 a capsizing moment. 1.3 Describes: .1 the angle of "loll" and the dynamics resulting in a zero moment at the angle of loll; .2 the potentially dangerous situation of a ship rolling about the angle of loll. 1.4 Able to: .1 identify and use: - cross curves (KN curves) - hydrostatic curves to determine the metacentre above the keel (KM) - determine the GM given the KG .2 know the formula GZ = KN - KG sin θ; .3 derive and draw a GZ curve for stable and initially unstable ships from KN curves; .4 obtain from a given curve of statical stability: .1 the maximum righting lever and the angle at which it occurs; .2 the angle of vanishing stability; .3 the range of stability; .5 show how lowering the position of G increases all values of the righting lever and vice versa. 1.5 Knows the statutory requirements for a fishing vessel.	As for module 1.	As for module 1.

NAVAL ARCHITECTURE (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	1.6 Calculates: .1 shift of G (horizontally and vertically) resulting from adding, removing, moving or suspending masses; .2 change in KG during a passage resulting from: .1 consumption of fuel and stores; .2 absorption of water by a deck cargo; .3 accretion of ice on decks and superstructures given the masses and their positions.		
3 Effect of slack tanks	3.1 Shows, with the aid of a diagram, the effect on the centre of gravity (G) when the liquid in a partly filled tank moves during rolling (free surface effect). 3.2 Knows: .1 that the increase in KG is affected mainly by the breadth of the free surface and is not dependent upon the mass of liquid in the tank; .2 what ship construction measures are taken to reduce the effects of free surface; .3 the procedure for ballasting tanks when the ship is at an angle of loll or when she has a small positive GM. 3.3 Calculates the virtual loss in GM due free surface moments.		

SHIP'S POWER PLANT (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	**KNOWLEDGE, UNDERSTANDING & PROFICIENCY**	**METHODS FOR DEMONSTRATING COMPETENCE**	**CRITERIA FOR EVALUATING COMPETENCE**
	MODULE 1		
Understand the working and operation of on board machinery and ship propulsion systems	1 Marine engineering terms: .1 Use the correct engineering terms when describing and explaining the operation of the machinery and equipment. .2 Explain what is meant by the efficiency of a machine. 2 Understand the construction and operation of the following: .1 MARINE POWER PLANTS *Diesel engines* .1 Describe the 4-stroke diesel engine. .2 Describe the methods of supercharging. .3 Describe the fuel oil system from bunker tank to injection. .4 Describe the lube oil system. .5 Describe the engine cooling-water systems. .6 Describe how a diesel engine is prepared for stand-by and starting. .7 Understand that the number of starts is limited by the capacity of the starting air reservoir. .2 AUXILIARIES .1 Describe a domestic water system. .2 Pumps and pumping systems: .1 Classify pumps as displacement, axial-flow or centrifugal. .2 Explain the need to prime a centrifugal pump. .3 Explain net positive suction head and it's significance in pump operation. .4 State that the engine-room emergency bilge suction is connected to the main circulating pump in the engine-room. .3 Steering gears: .1 Describe an electric steering control system. .2 Explain how the change from remote to local control in the engine room is made.	A Oral examination and assessment of evidence obtained from theoretical instruction. B Oral examination and assessment of evidence obtained from practical experience gained through on board training.	Show sufficient knowledge to discuss intelligently with the Chief Engineer, matters relating to the running and maintenance of power plants and auxiliary machinery, complying with safe operating limits at all times.

SHIP'S POWER PLANT (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING & PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 1		
	.4 Generators, alternators and electrical distribution: .1 Describe the operation of generators. .2 Describe a navigation light circuit with indicators and alarms, showing an alternative power supply. .3 Describe the characteristics of lead-acid batteries and of alkaline batteries. .4 Describe the maintenance of batteries. .5 Describe the safety precautions to be observed for battery compartments. .6 Outline the starting requirements for emergency generating sets. .7 List the services to be supplied from the emergency generator. .5 Oily-water separators and oil filtering equipment: .1 Describe the main purpose and operation of oily-water separators. .2 Describe how an oil-content meter functions. .3 Describe an oil discharge monitoring and control system. .6 Deck machinery: .1 State that the design and performance of anchor windlasses is subject to approval. society. .2 Describe an anchor winch. .3 Describe a cargo winch. .4 Sketch and describe a slewing deck crane, its motors and its controls. .5 Describe the lubrication of deck machinery. .6 Describe a spooling device to distribute the wire evenly on the drum of a mooring winch. .7 Hydraulic systems: .1 State that a hydraulic system for deck machinery consists of an oil tank, pumps, control valves, hydraulic motors and pipework. .2 State that cooling of the hydraulic oil is necessary during an operation to maintain the correct viscosity of the oil. .3 State that the oil may need to be heated before starting from cold. .4 State that cleanliness of the oil is essential for a satisfactory operation and that all systems contain filters. .5 State that air in the system leads to erratic functioning.		

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 1		
1 Take precaution to prevent pollution to the marine environment	1 Knows: .1 what to do in an emergency involving an oil spill on deck or in the engine-room; .2 the necessity of being aware at all times of preventing oils spills; .3 that it is prohibited to throw plastics overboard anywhere in the world; .4 that there are special areas (for the trade in which his ship is engaged) where certain pollutants may or may not be discharged overboard. (Cndidate will only be required to know that pollution regulations apply to ships.)	By oral examination and completion of approved education and training and assessment during approved on board training.	1.1 Is able to give a clear and concise oil spill report to a ship's officer. 1.2 Can assemble appropriate equipment to control an oil spill or pollution incident with special reference to quick response. 1.3 Containment of oil spill/pollution is achieved using appropriate procedures, techniques and equipment. 1.4 Organisational procedures designed to safeguard the marine environment are observed at all times.
2 Observe safe working practices	2.1 Has a broad knowledge of the contents of the Code of Safe Working Practices for Fishermen. 2.2 Is aware that the Maritime Occupational Safety Regulations provide rules to assist all seafarers. 2.3 Knows and understands their importance. 2.4 Is aware that there is a safety officer on board the ship. 2.5 Knows that his/her superiors have a duty to ensure that work on board is performed to a high standard of occupational safety. 2.6 Knows the importance of adhering to safe working practices at alltimes. 2.7 Knows the safety and protective devices available to protect against possible hazards aboard a ship, including overalls, safety helmets, goggles, safety footwear and safety harnesses. 2.8 Knows the precautions to take before entering enclosed spaces, including the permit to work system, duties of standby man and safe to work certificate.		2.1 The requirements of the Code of Safe Working Practises for Fishermen have been observed. 2.2 Shows an understanding of contents thereof and has shown understanding of the basic safety requirements observed by seamen in their ordinary course of duty. 2.3 Safe working practices are observed and appropriate safety and protective equipment is correctly used at all times.
3 Contribute to effective human relationship on board ship	3 Understands: .1 importance of maintaining good human and working relationships on board ship; .2 employment conditions, working hours and rest periods;		3 Expected standards of work and behaviour are observed at all times.

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	.3 individual rights and obligations in terms of the disciplinary code and grievance procedures; .4 dangers of drug and alcohol abuse in terms of their effects to health and safety of others; .5 drug and alcohol policies as applied by shipping companies; .6 basic conditions and terms of his or her contact of employment.		

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 2		
1 Take effective action in the event of an oil spill or other pollution emergency	1 Knows: .1 the ship board contingency plan for an oil spill; .2 where the Emergency Oil Spill Locker is; .3 the equipment that will be found therein and what each item is for.	As for module 1.	1 Is able to: .1 give a clear and concise oil spill report to a ship's officer; .2 assemble appropriate equipment to control an oil spill or pollution incident with special reference to quick response; .3 Contain an oil spill / pollution using appropriate procedures, techniques and equipment.
2 Protection and Preservation of the Marine Environment	2 Knows the zones regarding the disposal of garbage and other waste at sea.		2 Current pollution regulations are observed
3 The Maritime Occupational Safety Regulations	3.1 Has a working knowledge of the Maritime Occupational Safety Regulations and associated Code of Safe Working Practices for Fishermen and understanding of its importance. 3.2 Able to readily and effectively liaise with the vessel's safety officer. 3.3 Knows that the master and ship's officers have a duty to ensure that all work on board is performed to a high standard of occupational safety.		3..1 The requirements of the Code of Safe Working Practices for Fishermen have been observed. 3.2 Shows an understanding of a contents thereof and shows full understanding of all the various safety requirements required of seamen in the ordinary course of their duty.
4 Personnel management on board ships	4.1 Knows the principles of controlling subordinates and maintaining good relationships. 4.2 Able to lead, motivate and develop personnel. 4..3 Able to exercise authority. 4.4 Knows the conditions of employment and discipline and grievances procedure in which hearings are conducted. 4.5 Has an understanding of general industrial relations.		4.1 Applies the various factors affecting personnel management in ships. 4.2 Maintains good relations on board ship.
5 Organise staff	5 Knows how to organise staff and to allocate duties and tasks.		5 Organises staff tasks and duties.
6 Train subordinates on board	6 Understands the importance of familiarisation and ongoing training at sea.		6 Aptitude to give good practical training to subordinates during the course of normal work on board the vessel.
7 Assume command in an emergency or on the demise of the master	7 Knows what procedure is required when assuming command after the death of the master or when the master is temporarily incapacitated		7 Command capabilities with respect to maintaining a safe ship and a well managed.

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
	MODULE 3		
1 Organisations concerned with shipping	1 Knows the basic legal implications of rules, regulations and codes emanating from such organisations as government agencies.	By oral Examination, completion of approved education and training, written theoretical examination and assessment of evidence obtained from one or more of the following: 1 approved in-service experience; 2 approved training ship experience.	1 International and flag state rules, regulations and codes are properly applied to the ship and cargo.
2 Protection and Preservation of the marine environment	2.1 Knowledge of emergency pollution action and duties. 2.2 Shows full knowledge of the equipment in the Emergency Oil Spill Locker and how each item is used. 2.3 Knows what to do if called upon to rapidly organise an emergency team to tackle an oil spill / pollution hazard. 2.4 Has a working knowledge of the contents of the MARPOL Convention.		2.1 Rapidly assess an oil spill or pollution emergency. 2.2 Implement the shipboard emergency plan required by the current international pollution convention so as to preserve the marine environment.
3 Maritime Occupational Safety Regulations	3 Has a working knowledge of contents and regulations of the Maritime Occupational Safety Regulations.		3.1 Maritime Occupational Safety Regulations and associated Code of Safe Working Practises for Fishermen have been observed. 3.2 The various safety precautions required of seamen in the ordinary course of their duties are correctly observed and applied.

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)			
COLUMN 1	**COLUMN 2**	**COLUMN 3**	**COLUMN 4**
COMPETENCE	**KNOWLEDGE, UNDERSTANDING AND PROFICIENCY**	**METHODS FOR DEMONSTRATING COMPETENCE**	**CRITERIA FOR EVALUATING COMPETENCE**
	MODULE 4		
1 Manage personnel	1.1 At a skipper and chief engineer level: .1 organize and supervise training programmes; .2 lead, motivate and develop junior staff; .3 exercise authority; .4 allocate duties and tasks; .5 organise safety and emergency duties; .6 organise deck or engine room maintenance tasks; .7 conduct: .1 staff performance evaluation; .2 disciplinary proceedings; .3 grievances hearings. 1.2 Know: .1 manning requirements on board ship; .2 contracts of employment between company/manning agency and crew; .3 crews rights and responsibilities; .4 principles of general industrial relations. 1.3 Have an understanding of the requirements of local labour legislation as they affect ship's crews.	As for module 3.	1 The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned.
2 Responsibility under the master or chief engineer, for on board training of deck or engine-room staff as applicable	2.1 Knows: .1 Training methods; .2 training planning; .3 that training and assessment on board must be conducted, monitored, evaluated and supported by suitably trained persons. 2.2 Has an understanding of the STCW-F Convention.		2 Effective ability to take charge of on board training.

PERSONNEL MANAGEMENT AND SHIP'S BUSINESS (FISHING)			
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
MODULE 5			
1 IMO Conventions and local regulations in respect of oil pollution prevention and safety equipment	1.1 General knowledge of the requirements of the *Life-saving* Equipment Regulations and MARPOL Convention and the regulations concerning life-saving, fire-fighting appliances and oil pollution prevention.	As for module 3.	1 Determine the safety, and oil prevention equipment required on board ship.
2 Protection and *preservation of the marine* environment	2.1 Knowledge of the chief mate's or second engineer's duties (as applicable) and ship's *liability regarding pollution at sea* and able to ensure that the crew are fully trained in emergency oil *spill procedures* and the oil pollution locker is fully equipped in accordance with requirements. 2.2 Able to organise a rapid, effective response to an oil spill or other pollution emergency on board and knows the importance of conducting regular drills.		2 Action required to be taken after a *spill of oil or when* chemicals or sewage waste are inadvertently dumped *at sea so as to best preserve the* marine environment.
3 Full knowledge of the Maritime Occupational Safety Regulations	3 Full knowledge of contents and implications of the Maritime Occupational Safety Regulations.		3 Chief mate's duties or second engineer's duties (as *applicable) of ensuring that all* crew members are suitably informed/instructed and carry out the requirements of the Maritime Occupational Safety *Regulations.*