



SUB-COMMITTEE ON STANDARDS OF
TRAINING AND WATCHKEEPING
38th session
Agenda item 9

STW 38/9
20 October 2006
Original: ENGLISH

DEVELOPMENT OF COMPETENCES FOR RATINGS

Submitted by the United Kingdom

SUMMARY

Executive summary: This is the final report from the Correspondence Group which has been considering competences for Ratings. The findings are summarized in the attached tables

Action to be taken: Paragraph 9

Related document: STW 37/18

Report of the Correspondence Group

1 The Sub-Committee on Standards of Training and Watchkeeping at its thirty-seventh session (23 to 27 January 2006), agreed to re-establish the Correspondence Group, under the co-ordination of the United Kingdom*, for development of competences for ratings excluding the ship's cook, with the following terms of reference:

The Correspondence Group, taking into account the deliberation and decisions of STW 37, should:

- .1 develop appropriate tables of competence for 'able seafarer' and 'motorman' taking into account the proposed draft regulations II/5 and III/5 and the draft tables of competence;
- .2 prepare the text of a grandfather clause for inclusion in the proposed regulations II/5 and III/5 respectively;

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- .3 taking into account regulations I/6 and I/8, clarify that the proposed regulations II/5 and III/5 requires on-board training to be approved and documented, and the criteria for reduction in sea service;
- 4 consider the need to address training and certification issues related to General Purpose Ratings and, if so, develop: a definition for General Purpose Ratings; appropriate training requirements; associated amendments, if necessary; and advise the Sub-Committee as appropriate;
- .5 should explore the possibility of resolving the gender issue relating to the term 'motorman'; and
- .6 submit a report to STW 38.

2 The Correspondence Group members participating consisted of representatives from the following Member Governments:

AUSTRALIA	JAPAN
BAHAMAS	LATVIA
CHILE	MALTA
CHINA	MARSHALL ISLANDS
DENMARK	NETHERLANDS
FINLAND	REPUBLIC OF KOREA
FRANCE	SINGAPORE
GERMANY	SPAIN
GREECE	UNITED KINGDOM
INDIA	UNITED STATES
IRAN (ISLAMIC REPUBLIC OF)	VENEZUELA
IRELAND	

and observers from the following non-governmental organizations in consultative status:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
 INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS (ICFTU)
 INTERNATIONAL SHIP MANAGERS' ASSOCIATION (ISMA)
 INTERNATIONAL SHIPPING FEDERATION (ISF)
 INTERNATIONAL LABOUR ORGANIZATION (ILO)

3 With so many participants it has not been possible to get unanimous agreement on all issues. This paper therefore gives a consensus view, wherever possible. Alternative views expressed by a minority of participants have been included, where requested, in annex 1.

Group objectives

4 In accordance with the terms of reference, the Correspondence Group was tasked to prepare draft amendments for inclusion in chapters II and III of the STCW Convention and the associated parts of the STCW Code. The proposed deliverables are as follows:

- .1 develop appropriate tables of competence for 'able seafarer' and 'motorman' taking into account the proposed draft regulations II/5 and III/5 and the draft tables of competence;
- .2 prepare the text of a grandfather clause for inclusion in the proposed regulations II/5 and III/5 respectively; and
- .3 consider the need to address training and certification issues related to General Purpose Ratings and, if so, develop a definition for General Purpose Ratings together with appropriate training requirements and advise the Sub-Committee as appropriate.

5 It was noted that currently a number of parties had not acceded to the ILO Convention, and furthermore that the ILO Convention did not include Engine room ratings. Hence there was a need to cater for such ratings who have been trained and certified under national laws and/or have been performing these tasks over the years.

6 The proposed draft regulations II/5, III/5, section A-II/5 and section A-III/5 including the proposed text for the Grandfather clause agreed by the Correspondence Group are set at annex 2.

7 The Group agreed that in order to resolve the gender issue relating to the term 'Motorman' to use generic terms 'Able Seafarer Deck' and 'Able Seafarer Engine' as appropriate.

8 Due to the paucity of time the Correspondence Group was not able to address issues relating to the training and certification of GP Ratings.

Action requested of the Sub-Committee

9 The Sub-Committee is invited to note the information and decide as appropriate.

ANNEX 1

MINORITY VIEWS

A number of issues could not be agreed unanimously. The following items were those where consensus could not be fully reached and the majority view prevailed:

Germany wished to use the following words regarding Grandfather rights and Sea service, training and Qualifications

1. Grandfather rights

Seafarers may be considered by the Party to have met this requirement if:

- .1 they are the holder of a certificate issued by the Party in accordance with ILO Certification of Able Seamen Convention, 1946 or;
- .2 they have served in a relevant capacity in the deck department [for a period of not less than one year within the last five years] preceding the adoption of this regulation and they have undergone the training referred to in chapter VI specified in section A-II/5 of the STCW Code.

Seafarers may be considered by the Party to have met this requirement if they have served in a relevant capacity in the engine department for a period of not less than one year within the last five years preceding the adoption of this regulation and they have undergone the training referred to in chapter VI specified in section A-III/5 of the STCW Code.

2. Seaman Convention, 1946. This text should precede paragraph 3 of proposed regulations II/5 and III/5. The new text would read as follows:

“Until [date], a Party may continue to issue certificates in accordance with its previous practices in respect of those seafarers who commenced approved seagoing service, or an approved training program before entry into force of this regulation.” and shall be considered to have met the requirements of A-II/5 or A-III/5 of the STCW Code.

3. Sea Service, Training and Qualifications

To include additionally in the sea service requirements an additional option

Able Seafarer Deck requires

- 6 months seagoing service and an approved course of at least 12 months

Able Seafarer Engine requires

- a special training programme of at least 12 months with not less than 6 months seagoing service which is documented in an approved training record book

Greece requested that their following words be included in this annex verbatim:

SUMMARY OF MAJOR COMMENTS

1. Terms “able seafarer” and “motorman” are already defined from STW 37. Only tasked to explore the possibility of resolving the gender issue relating to the term “motorman”.
2. Certification of both “able seafarer” and “motorman” according to chapter VI of STCW is appropriate and enough and no reference should be made to relative competences in the tables.
3. They both should have CP in SC&RB (*sic*) and especially in AFF.
4. Definition of the starting point of the sea service required in order to clarify that it has to be after their certification as II/4 or III/4 .
5. No need for reference to security training issues in the tables.
6. Supported the grandfather clause proposed by Ireland. (ILO certification or 1 year sea service in the deck/engine department within the previous 5 years + appropriate VI certification). If considered necessary that seafarers already certified under II/4 of STCW shall undergo training to become II/5, this must also be the case for seafarers certified under ILO’s Convention, in order to update their knowledge and adapt to STCW’s requirements. Supported also the US proposal of including an annex to the final report outlining the various recommendations in order to resolve the matter in STW 38.
7. On board training should be included as an alternative method to the relevant “approved course”.
8. No need to add qualifying examination as part of the requirements.

either ... months seagoing service after being certified as rating forming part of a ... watch;

or, to be consistent with the other provisions of the Convention (Reg. II/2, II/3):

... meet the requirements for certification as a rating forming part of a ... watch and have approved seagoing service in that capacity.

Netherlands and Denmark requested the following two comments be included in this annex:

“xx Several [two] members of the correspondence group favour a flexible system regarding sea service and education and training and suggested to introduce, in addition to the proposals as contained in annex .., [an additional] [a second option]. Such a [additional][second] system could be based upon vocational education followed by an appropriate STCW course and adapted sea service.

yy As there was no time within the correspondence group to work out such a [additional][second] system, interested Member States are invited to come forward with detailed proposals in this respect and to make them available to the STW 38 working group for further discussion.”

The following minority views were also expressed:

1. Security

A small number of members wanted a paragraph regarding Security but the majority felt this was dealt with in STW 37. See paper *STW 37/18/0 Report To The Maritime Safety Committee*.

2. Advanced Fire Fighting

The following members strongly supported the inclusion of Advanced Fire Fighting as a requirement for qualification as AB Deck or AB Engine:

Chile	Spain
Ireland	United Kingdom
Germany	Japan
Greece	

3. PSC&RB

Greece required this competence for Able Seafarer engine

4. Welding/Metal Working skills

Competence for Able seafarer engine	Germany
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5. Power Tools

Competence for Able seafarer engine	Germany, Iran
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6. Meteorology

Competence for Able seafarer deck	Chile, Germany
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7. Knowledge of ISM Code

Competence for Able seafarer deck	Denmark, Chile, Spain, Germany
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8. Helicopter Operations

Competence for Able seafarer deck	Malta, Germany
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9. Knowledge of MARPOL

Competence for Able seafarer deck and engine	Spain
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The following comments were received from the Republic of Iran too late for inclusion in the CG deliberations.

Republic of Iran

Terms of Reference (STW37/18/10.35.3)

The above mentioned T.O.R require that CG “taking into account regulations I/6 and I/8, clarify that the proposed regulations II/5 and III/5 requires onboard training to be approved and documented and the criteria for reduction in sea service”.

5. paragraph 4 of final report

It seems that without amendment to chapter VII of the Convention and section A-VII of the Code, the existing provisions of the mentioned chapter and section do not allow the issue of alternate certificate (GP) for new regulations II/5 and III/5 .

ANNEX 2

**DRAFT AMENDMENTS TO THE INTERNATIONAL CONVENTION ON
STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR
SEAFARERS (STCW), 1978, AS AMENDED**

Chapter II**Master and deck department****Proposed new regulation II/5*****Mandatory minimum requirements for certification of ratings as able seafarer deck***

- 1 Every able seafarer serving on a seagoing ship of 500 gross tonnage or more shall be duly certificated.
- 2 Every candidate for certification shall:
 - .1 be not less than [18 years] of age;
 - .2 meet the requirements for certification as a rating forming part of a navigational watch and have approved seagoing service as rating in the deck department:
 - .2.1 not less than [**18 months**] , or
 - .2.2 not less than [**12 months**] and have completed approved training; and
 - .3 meet the standard of competence specified in section A-II/5 of the STCW Code.
- 3 Every Party shall compare the standards of competence which it required of [able seaman] for certificates issued before [**date**] with those specified for the certificate in section A-II/5 of the STCW Code, and shall determine the [**possible**] need, if any, for requiring these personnel to update their qualifications;
- 4 Until [**date**], a Party may continue to issue, recognize and endorse certificates in accordance with the provisions of the Convention* which applied immediately prior to the entry into force of this regulation;
- 5 Until [**date**], a Party may continue to renew and revalidate certificates and endorsements in accordance with the provisions of the Convention* which applied immediately prior to entry into force of this regulation.
- 6 Seafarers may be considered by the Party to have met the requirement of this regulation if they have served in a relevant capacity in the deck department for a period of not less than [one year] in the last five years preceding the entry into force of this regulation for that Party.

* This refers to the ILO Certification of Able Seamen Convention, 1946.

(Proposed Text for Grandfather Clause)

5 Seafarers may be considered by the Party to have met the requirement of this regulation if they have served in a relevant capacity in the deck department for a period of not less than [one year] within the last five years preceding the entry into force of this regulation for that Party.

Chapter III

Engine department

Proposed new regulation III/5

Mandatory minimum requirements for certification of ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

1 Every able seafarer engine serving on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more shall be duly certificated.

2 Every candidate for certification shall:

- .1 be not less than [18 years] of age;
- .2 meet the requirements for certification as a rating forming part of a watch in a manned engine-room or designated to perform duties in a periodically unmanned engine-room and have approved seagoing service as rating in the engine department:
 - .2.1 not less than [12 months], or
 - .2.2 not less than [6 month]s and have completed approved training; and
- .3 meet the standard of competence specified in section A-III/5 of the STCW Code.

3 Seafarers may be considered by the Party to have met the requirement of this regulation if they have served in a relevant capacity in the engine department for a period of not less than [one year] in the last five years preceding the entry into force of this regulation for that Party.

(Proposed Text for Grandfather Clause)

4 Seafarers may be considered by the Party to have met the requirement of this regulation if they have served in a relevant capacity in the engine department for a period of not less than [one year] within the last five years preceding the entry into force of this regulation for that Party.

DRAFT AMENDMENTS TO THE SEAFARERS TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW) CODE

Proposed new section A-II/5

Mandatory minimum requirements for certification of ratings as able seafarer deck

Standard of competence

- 1 Every able seafarer deck serving on a seagoing ship of 500 gross tonnage or more shall be required to demonstrate the competence to perform the functions at the support level, as specified in column 1 of table A-II/5.
- 2 The minimum knowledge, understanding and proficiency required of able seafarers serving on a seagoing ship of 500 gross tonnage or more is listed in column 2 of table A-II/5.
- 3 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence specified in columns 3 and 4 of table A-II/5.

Table A – II/5

Specification of minimum standards of competence of ratings as able seafarer deck

Function : Navigation at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to a Safe Navigational Watch			TABLE A-II/4

Function: Cargo handling and stowage at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to the handling of cargo and stores	Knowledge of procedures for safe handling, stowage and securing of cargoes and stores, including dangerous, hazardous and harmful substances and liquids. Basic knowledge of and precautions to observe in connection with particular types of cargo and identification of IMDG labelling.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Cargo and stores operations are carried out in accordance with established safety procedures and equipment operating instructions. The handling of dangerous, hazardous and harmful cargoes or stores complies with established safety practices.

Function: Controlling the operation of the ship and care for persons on board at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to the safe operation of deck equipment and machinery	Knowledge of deck equipment including: .1 function and uses of valves and pumps, hoists, cranes, booms, and related equipment; .2 function and uses of winches, windlasses, capstans and related equipment ; .3 hatches, watertight doors, ports, and related equipment ; .4 fibre and wire rope, cables and chains including their construction, use, markings, maintenance and proper stowage; .5 ability to use and understand basic signals for the operation of equipment including winches, windlasses, cranes, and hoists; .6 ability to operate anchoring equipment under various conditions such as anchoring, weighing anchor, securing for sea, and in emergencies.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience. Assessment of evidence obtained from practical demonstration. Assessment of evidence obtained from practical demonstration.	Operations are carried out in accordance with established safety practices and equipment operating instructions. Communications within the operator's area of responsibility are consistently successful. Equipment operation is safely carried out in accordance with established procedures. Demonstrate the proper methods for rigging and unrigging in accordance with safe industry practice.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
	Knowledge of the following procedures and ability to: .1 rig and unrig bosun's chairs and staging; .2 rig and unrig pilot ladders, hoists, rat-guards, gangways and brows; .3 use marlin spike seamanship skills including the proper use of knots, splices, and stoppers. Use and handling of deck and cargo handling gear and equipment: - Access arrangements, hatches and hatch covers, ramps, side/bow/stern doors or elevators - pipeline systems – bilge and ballast, suctions and wells - cranes, derricks, winches. Knowledge of hoisting and dipping flags and the main single flag signals. (A,B,G,H,O,P,Q).	Assessment of evidence obtained from practical demonstration.	Demonstrate the proper creation and use of knots, splices, stoppers, whippings, servings as well as proper canvas handling. Demonstrate the proper use of blocks and tackle. Demonstrate the proper methods for handling lines, wires, cables and chains.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to berthing, anchoring and other mooring operations	Working knowledge of the mooring system and related procedures including: .1 the function of mooring and tug lines and how each line functions as part of an overall system; .2 the capacities, safe working loads, and breaking strengths of mooring equipment including mooring wires, synthetic and fibre lines, winches, anchor windlasses, capstans, bitts, chocks and bollards; .3 the procedures and order of events for making fast and letting go mooring and tug lines and wires include towing lines; .4 the procedures and order of events for the use of anchors in various operations. Working knowledge of the procedures and order of events associated with mooring to a buoy or buoys.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination in mooring simulator; .4 approved training ship experience.	Operations are carried out in accordance with established safety practices and equipment operating instructions.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Apply health and safety precautions	Working knowledge of safe working practices and personal shipboard safety including: .1 working aloft; .2 working over the side; .3 working in enclosed spaces; .4 permit to work systems; .5 line handling; .6 lifting techniques and methods of preventing back injury; .7 electrical safety; .8 mechanical safety; .9 chemical and biohazard safety; .10 personal safety.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Procedures designed to safeguard personnel and the ship are observed at all times. Safe working practices are observed and appropriate safety and protective equipment is correctly used at all times.
Apply precautions and contribute to the prevention of pollution of the marine environment	Knowledge of the precautions to be taken to prevent pollution of the marine environment. Knowledge of the use and operation of anti-pollution equipment. Knowledge of the approved methods for disposal of marine pollutants.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Procedures designed to safeguard the marine environment are observed at all times.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Operate survival craft and rescue boats	As per chapter VI table A/VI 2-1	PSC&RB	
Apply precautions and contribute to vessel security	Knowledge of precautions to identify, prevent and respond to security incidents.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience ; .2 practical training; .3 examination; .4 approved training ship experience.	Procedures designed to safeguard the security of the ship are observed at all times.

Function: Maintenance and repair at the support level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to shipboard maintenance and repair	Ability to use painting, lubrication and cleaning materials and equipment. Ability to understand and execute routine maintenance and repair procedures. Understanding manufacturer's safety guidelines. Knowledge of surface preparation techniques. Knowledge of safe disposal techniques for waste materials. Knowledge of the application, maintenance and use of hand tools.	Assessment of evidence obtained from practical demonstration. Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Maintenance and repair activities are carried out in accordance with technical, safety and procedural specifications.

Proposed new section A-III/5

Mandatory minimum requirements for certification of ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

Standard of competence

- 1 Every able seafarer engine serving on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more shall be required to demonstrate the competence to perform the functions at the support level, as specified in column 1 of table A-III/5.
- 2 The minimum knowledge, understanding and proficiency required of an able seafarer engine serving on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more is listed in column 2 of table A-III/5.
- 3 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence specified in columns 3 and 4 of table A-III/5.

Table III/5

Specification of minimum standards of competence of ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

Marine Engineering at the Support Level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to safe engineering watchkeeping	Specification of minimum standard of competence for Ratings Forming Part of an Engineering Watch or Performing duties in an unmanned engine room.		TABLE A-III/4
Contribute to the monitoring and controlling of an engine-room watch	Basic knowledge of the function and operation of the main propulsion and auxiliary machinery. Basic understanding of main propulsion and auxiliary machinery control pressures, temperature and levels.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 approved training ship experience; or .3 practical test.	The frequency and extent of monitoring of main propulsion and auxiliary machinery conforms with accepted principles and procedures. Deviations from the norm are identified. Unsafe conditions or potential hazards are promptly recognized, reported and rectified before work continues.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to fuelling and oil transfer operations	Knowledge of the function and operation of fuel system and oil transfer operations, including: .1 Preparations for fuelling and transfer operations; .2 Procedures for connecting and disconnecting fuelling and transfer hoses; .3 Procedures relating to incidents that may arise during fuelling or transferring operation; .4 Securing from fuelling and transfer operations; .5 Ability to correctly measure and report tank levels.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience. Assessment of evidence obtained from practical demonstration.	Transfer operations are carried out in accordance with established safety practices and equipment operating instructions. The handling of dangerous, hazardous and harmful liquids complies with established safety practices. Communications within the operator's area of responsibility are consistently successful.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to bilge and ballast operations	Knowledge of the function, operation and maintenance of the bilge and ballast systems, including: .1 Reporting incidents associated with transfer operations; .2 Ability to correctly measure and report tank levels.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience Assessment of evidence obtained from practical demonstration.	Operations and maintenance are carried out in accordance with established safety practices and equipment operating instructions and pollution of the marine environment is avoided. Communications within the operator's area of responsibility are consistently successful.
Contribute to the operation of equipment and machinery	Safe operation of equipment, including: .1 valves and pumps; .2 hoists and lifting equipment; .3 hatches, watertight doors, ports and related equipment Ability to use and understand basic crane, winch and hoist signals.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training .3 examination; .4 approved training ship experience Assessment of evidence obtained from practical demonstration.	Operations are carried out in accordance with established safety practices and equipment operating instructions. Communications within the operator's area of responsibility are consistently successful.

Electrical, electronic and control engineering at the Support Level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Safe use of electrical equipment	Safe use and operation of electrical equipment, including: .1 safety precautions before commencing work or repair; .2 isolation procedures; .3 emergency procedures; .4 different voltages on board. Knowledge the causes of electric shock and precautions to be observed to prevent shock. Apply first aid for electric shock victims.	Assessment of evidence obtained from one or more of the following: .1 approved in service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Recognizes and reports electrical hazards and unsafe equipment. Understands safe voltages for hand held equipment. Understands risks associated with high voltage equipment and onboard work.

Maintenance and repair at the Support Level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating Competence
Contribute to shipboard maintenance and repair	Ability to use cleaning and painting materials and equipment. Knowledge of surface preparation techniques. Knowledge of safe disposal techniques for waste materials.	Assessment of evidence obtained from practical demonstration. Assessment of evidence obtained from one or more of the following:	Maintenance activities are carried out in accordance with technical, safety and procedural specifications. Selection and use of equipment and tools is appropriate.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating Competence
	Ability to understand and execute routine maintenance and repair procedures. Understanding manufacturer's safety guidelines. Knowledge of the application, maintenance and use of hand tools and measuring instruments and machine tools.	.1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	

Controlling the operation of the ship and care for persons on board at the Support Level

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Contribute to the handling of stores	Knowledge of procedures for safe handling, stowage and securing of stores	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Stores operations are carried out in accordance with established safety practices and equipment operating instructions. The handling of dangerous, hazardous and harmful stores complies with established safety practices. Communications within the operator's area of responsibility are consistently successful.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Apply precautions and contribute to the prevention of pollution to the marine environment	Knowledge of the precautions to be taken to prevent pollution of the marine environment. Knowledge of use and operation of anti-pollution equipment. Knowledge of approved methods for disposal of marine pollutants.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Procedures designed to safeguard the marine environment are observed at all times.
Apply health and safety procedures	Working knowledge of personal shipboard safety practices, including: .1 electrical safety; .2 lockout/tagout; .3 mechanical safety; .4 safe working practices as related to working aloft or in enclosed spaces; .5 chemical and biohazard safety; .6 personal safety equipment.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience; .2 practical training; .3 examination; .4 approved training ship experience.	Procedures designed to safeguard personnel and the ship are observed at all times. Safe working practices are observed and appropriate safety and protective equipment is correctly used at all times.

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Apply precautions and contribute to vessel security	Knowledge of precautions to identify, prevent and respond to security incidents.	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 practical training .3 examination .4 approved training ship experience	Procedures designed to safeguard the security of the ship are observed at all times.
