TRAINING REGULATIONS

ABLE SEAFARER DECK NC II
(STCW Regulation II/5)

MARITIME SECTOR

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
East Service Road, South Superhighway, Taguig City, Metro Manila

Technical Education and Skills Development Act of 1994
(Republic Act No. 7796)

Section 22, "Establishment and Administration of the National Trade Skills Standards" of the RA 7796 known as the TESDA Act mandates TESDA to establish national occupational skill standards. The Authority shall develop and implement a certification and accreditation program in which private industry group and trade associations are accredited to conduct approved trade tests, and the local government units to promote such trade testing activities in their respective areas in accordance with the guidelines to be set by the Authority.

The Training Regulations (TR) serve as basis for the:

1. Competency assessment and certification;
2. Registration and delivery of training programs; and
3. Development of curriculum and assessment instruments.

Each TR has four sections:

Section 1 Definition of Qualification - refers to the group of competencies that describes the different functions of the qualification.

Section 2 Competency Standards - gives the specifications of competencies required for effective work performance.

Section 3 Training Standards - contains information and requirements in designing training program for certain Qualification. It includes curriculum design, training delivery; trainee entry requirements; tools equipment and materials; training facilities; trainer's qualification and institutional assessment.

Section 4 National Assessment and Certification Arrangement - describes the policies governing assessment and certification procedure.

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ABLE SEAFARER DECK NC II (STCW Regulation II/5)

TRAINING REGULATIONS FOR

ABLE SEAFARER DECK NC II (STCW Regulation II/5)

SECTION1 ABLE SEAFARER DECK NC II (STCW Regulation II/5) QUALIFICATION

The **ABLE SEAFARER DECK (STCW Regulation II/5)** Qualification consists of competencies that a person must achieve to perform navigation at the support level, perform cargo handling and stowage at the support level, control the operation of the ship and care for persons on board at the support level and perform maintenance and repair at the support level.

This Qualification is packaged from the competency map of the Maritime Sector as shown in Annex A and complies with the requirements of STCW Regulation II/5.

The Units of Competency comprising this Qualification include the following:

Code No.	BASIC COMPETENCIES
500311105	Participate in Workplace Communication
500311106	Work in a Team Environment
500311107	Practice Career Professionalism
500311108	Practice Occupational Health and Safety Procedures

Code No.	COMMON COMPETENCIES
MTM834208	Survive at sea in the event of ship abandonment
MTM834209	Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire
MTM834210	Fight and extinguish fire
MTM834211	Take immediate action upon encountering an accident or other medical emergency
MTM834212	Comply with emergency procedures
MTM834213	Take precautions to prevent pollution of the marine environment
MTM834214	Observe safe working practices
MTM834215	Demonstrate security awareness practices

Code No.	CORE COMPETENCIES
MTM83417	Perform Navigation at the Support Level
MTM83418	Perform Cargo Handling and Stowage at the Support Level
MTM83419	Control the Operation of the Ship and Care for Persons on Board at the Support Level
MTM83420	Perform Maintenance and Repair at the Support Level

A person who has achieved this Qualification is competent to be:

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SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the basic, common and core units of competency required in **ABLE SEAFARER DECK NC II (STCW Regulation II/5)**.

BASIC COMPETENCIES

UNIT OF COMPETENCY : PARTICIPATE IN WORKPLACE COMMUNICATION

UNIT CODE : 500311105

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from ***appropriate sources*** 1.2 Effective questioning , active listening and speaking skills are used to gather and convey information 1.3 Appropriate ***medium*** is used to transfer information and ideas 1.4 Appropriate non- verbal communication is used 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed 1.6 Defined workplace procedures for the location and ***storage*** of information are used 1.7 Personal interaction is carried out clearly and concisely
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time 2.2 Own opinions are clearly expressed and those of others are listened to without interruption 2.3 Meeting inputs are consistent with the meeting purpose and established ***protocols*** 2.4 ***Workplace interactions*** are conducted in a courteous manner 2.5 Questions about simple routine workplace procedures and maters concerning working conditions of employment are asked and responded to 2.6 Meetings outcomes are interpreted and implemented
3. Complete relevant work related documents	3.1 Range of ***forms*** relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 Basic mathematical processes are used for routine calculations 3.4 Errors in recording information on forms/ documents are identified and properly acted upon 3.5 Reporting requirements to supervisor are completed according to organizational guidelines

RANGE OF VARIABLES

VARIABLE	RANGE
1. Appropriate sources	1.1 Team members 1.2 Suppliers 1.3 Trade personnel 1.4 Local government 1.5 Industry bodies
2. Medium	2.1 Memorandum 2.2 Circular 2.3 Notice 2.4 Information discussion 2.5 Follow-up or verbal instructions 2.6 Face to face communication
3. Storage	3.1 Manual filing system 3.2 Computer-based filing system
4. Forms	4.1 Personnel forms, telephone message forms, safety reports
5. Workplace interactions	5.1 Face to face 5.2 Telephone 5.3 Electronic and two way radio 5.4 Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
6. Protocols	6.1 Observing meeting 6.2 Compliance with meeting decisions 6.3 Obeying meeting instructions

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Prepared written communication following standard format of the organization 1.2 Accessed information using communication equipment 1.3 Made use of relevant terms as an aid to transfer information effectively 1.4 Conveyed information effectively adopting the formal or informal communication
2. Underpinning Knowledge and Attitudes	2.1 Effective communication 2.2 Different modes of communication 2.3 Written communication 2.4 Organizational policies 2.5 Communication procedures and systems 2.6 Technology relevant to the enterprise and the individual's work responsibilities
3. Underpinning Skills	3.1 Follow simple spoken language 3.2 Perform routine workplace duties following simple written notices 3.3 Participate in workplace meetings and discussions 3.4 Complete work related documents 3.5 Estimate, calculate and record routine workplace measures 3.6 Basic mathematical processes of addition, subtraction, division and multiplication 3.7 Ability to relate to people of social range in the workplace 3.8 Gather and provide information in response to workplace Requirements
4. Resource Implications	4.1 Fax machine 4.2 Telephone 4.3 Writing materials 4.4 Internet
5. Methods of Assessment	5.1 Direct Observation 5.2 Oral interview and written test
6. Context of Assessment	6.1 Competency may be assessed individually in the actual workplace or through accredited institution

UNIT OF COMPETENCY : WORK IN TEAM ENVIRONMENT

UNIT CODE : 500311106

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables
1. Describe team role and scope	1.1 The ***role and objective of the team*** is identified from available ***sources of information*** 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources
2. Identify own role and responsibility within team	2.1 Individual role and responsibilities within the team environment are identified 2.2 Roles and responsibility of other team members are identified and recognized 2.3 Reporting relationships within team and external to team are identified
3. Work as a team member	3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and ***workplace context*** 3.3 Observed protocols in reporting using standard operating procedures 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	1.1 Work activities in a team environment with enterprise or specific sector 1.2 Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment
2. Sources of information	2.1 Standard operating and/or other workplace procedures 2.2 Job procedures 2.3 Machine/equipment manufacturer's specifications and instructions 2.4 Organizational or external personnel 2.5 Client/supplier instructions 2.6 Quality standards 2.7 OHS and environmental standards
3. Workplace context	3.1 Work procedures and practices 3.2 Conditions of work environments 3.3 Legislation and industrial agreements 3.4 Standard work practice including the storage, safe handling and disposal of chemicals 3.5 Safety, environmental, housekeeping and quality guidelines

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Operated in a team to complete workplace activity 1.2 Worked effectively with others 1.3 Conveyed information in written or oral form 1.4 Selected and used appropriate workplace language 1.5 Followed designated work plan for the job 1.6 Reported outcomes
2. Underpinning Knowledge and Attitude	2.1 Communication process 2.2 Team structure 2.3 Team roles 2.4 Group planning and decision making
3. Underpinning Skills	3.1 Communicate appropriately, consistent with the culture of the workplace
4. Resource Implications	The following resources **MUST** be provided: 4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2 Materials relevant to the proposed activity or tasks
5. Methods of Assessment	Competency may be assessed through: 5.1 Observation of the individual member in relation to the work activities of the group 5.2 Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal 5.3 Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
6. Context for Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting 6.2 Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY : PRACTICE CAREER PROFESSIONALISM

UNIT CODE : 500311107

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables
1. Integrate personal objectives with organizational goals	1.1 Personal growth and work plans are pursued towards improving the qualifications set for the profession 1.2 Intra- and interpersonal relationships ~~is~~ are maintained in the course of managing oneself based on performance ***evaluation*** 1.3 Commitment to the organization and its goal is demonstrated in the performance of duties
2. Set and meet work priorities	2.1 Competing demands are prioritized to achieve personal, team and organizational goals and objectives. 2.2 ***Resources*** are utilized efficiently and effectively to manage work priorities and commitments 2.3 Practices along economic use and maintenance of equipment and facilities are followed as per established procedures
3. Maintain professional growth and development	3.1 ***Trainings and career opportunities*** are identified and availed of based on job requirements 3.2 ***Recognitions*** are -sought/received and demonstrated as proof of career advancement 3.3 ***Licenses and/or certifications*** relevant to job and career are obtained and renewed

RANGE OF VARIABLES

VARIABLE	RANGE
1. Evaluation	1.1 Performance Appraisal 1.2 Psychological Profile 1.3 Aptitude Tests
2. Resources	2.1 Human 2.2 Financial 2.3 Technology 2.3.1 Hardware 2.3.2 Software
3. Trainings and career opportunities	3.1 Participation in training programs 3.1.1 Technical 3.1.2 Supervisory 3.1.3 Managerial 3.1.4 Continuing Education 3.2 Serving as Resource Persons in conferences and workshops
4. Recognitions	4.1 Recommendations 4.2 Citations 4.3 Certificate of Appreciations 4.4 Commendations 4.5 Awards 4.6 Tangible and Intangible Rewards
5. Licenses and/or certifications	5.1 National Certificates 5.2 Certificate of Competency 5.3 Support Level Licenses 5.4 Professional Licenses

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Attained job targets within key result areas (KRAs) 1.2 Maintained intra - and interpersonal relationship in the course of managing oneself based on performance evaluation 1.3 Completed trainings and career opportunities which are based on the requirements of the industries 1.4 Acquired and maintained licenses and/or certifications according to the requirement of the qualification
2. Underpinning Knowledge	2.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.) 2.2 Company policies 2.3 Company-operations, procedures and standards 2.4 Fundamental rights at work including gender sensitivity 2.5 Personal hygiene practices
3. Underpinning Skills	3.1 Appropriate practice of personal hygiene 3.2 Intra and Interpersonal skills 3.3 Communication skills
4. Resource Implications	The following resources **MUST** be provided: 4.1 Workplace or assessment location 4.2 Case studies/scenarios
5. Methods of Assessment	Competency may be assessed through: 5.1 Portfolio Assessment 5.2 Interview 5.3 Simulation/Role-plays 5.4 Observation 5.5 Third Party Reports 5.6 Exams and Tests
6. Context of Assessment	6.1 Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY : **PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES**

UNIT CODE : **500311108**

UNIT DESCRIPTOR : This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** terms are elaborated in the Range of Variables
1. Identify hazards and risks	1.1 ***Safety regulations*** and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures 1.2 ***Hazards/risks*** in the workplace and their corresponding indicators are identified to minimize or eliminate risk to co-workers, workplace and environment in accordance with organization procedures 1.3 ***Contingency measures*** during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures
2. Evaluate hazards and risks	2.1 Terms of maximum tolerable limits which when exceeded will result in harm or damage are identified based on threshold limit values (TLV) 2.2 Effects of the hazards are determined 2.3 OHS issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation
3. Control hazards and risks	3.1 Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace are consistently followed 3.2 Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OHS policies 3.3 ***Personal protective equipment (PPE)*** is correctly used in accordance with organization OHS procedures and practices 3.4 Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol
4. Maintain OHS awareness	4.1 ***Emergency-related drills and trainings*** are participated in as per established organization guidelines and procedures 4.2 ***OHS personal records*** are completed and updated in accordance with workplace requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety regulations	May include but are not limited to: 1.1 Clean Air Act 1.2 Building code 1.3 National Electrical and Fire Safety Codes 1.4 Waste management statutes and rules 1.5 Philippine Occupational Safety and Health Standards 1.6 DOLE regulations on safety legal requirements 1.7 ECC regulations
2. Hazards/Risks	May include but are not limited to: 2.1 Physical hazards – impact, illumination, pressure, noise, vibration, temperature, radiation 2.2 Biological hazards- bacteria, viruses, plants, parasites, mites, molds, fungi, insects 2.3 Chemical hazards – dusts, fibers, mists, fumes, smoke, gasses, vapors 2.4 Ergonomics • Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles • Physiological factors – monotony, personal relationship, work out cycle
3. Contingency measures	May include but are not limited to: 3.1 Evacuation 3.2 Isolation 3.3 Decontamination 3.4 (Calling designed) emergency personnel
4. PPE	May include but are not limited to: 4.1 Mask 4.2 Gloves 4.3 Goggles 4.4 Hair Net/cap/bonnet 4.5 Face mask/shield 4.6 Ear muffs 4.7 Apron/Gown/coverall/jump suit 4.8 Anti-static suits
5. Emergency-related drills and training	5.1 Fire drill 5.2 Earthquake drill 5.3 Basic life support/CPR 5.4 First aid 5.5 Spillage control 5.6 Decontamination of chemical and toxic 5.7 Disaster preparedness/management
6. OHS personal records	6.1 Medical/Health records 6.2 Incident reports 6.3 Accident reports 6.4 OHS-related training completed

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Explained clearly established workplace safety and hazard control practices and procedures 1.2 Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures 1.3 Recognized contingency measures during workplace accidents, fire and other emergencies 1.4 Identified terms of maximum tolerable limits based on threshold limit value- TLV. 1.5 Followed Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace 1.6 Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices 1.7 Completed and updated OHS personal records in accordance with workplace requirements
2. Underpinning Knowledge and Attitude	2.1 OHS procedures and practices and regulations 2.2 PPE types and uses 2.3 Personal hygiene practices 2.4 Hazards/risks identification and control 2.5 Threshold Limit Value -TLV 2.6 OHS indicators 2.7 Organization safety and health protocol 2.8 Safety consciousness 2.9 Health consciousness
3. Underpinning Skills	3.1 Practice of personal hygiene 3.2 Hazards/risks identification and control skills 3.3 Interpersonal skills 3.4 Communication skills
4. Resource Implications	The following resources must be provided: 4.1 Workplace or assessment location 4.2 OHS personal records 4.3 PPE 4.4 Health records
5. Methods of Assessment	Competency may be assessed through: 5.1 Portfolio Assessment 5.2 Interview 5.3 Case Study/Situation
6. Context for Assessment	6.1 Competency may be assessed in the work place or in a simulated work place setting

COMMON COMPETENCIES

UNIT OF COMPETENCY : SURVIVE AT SEA IN THE EVENT OF SHIP ABANDONMENT

UNIT CODE : MTM834208

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in surviving at sea in the event of ship abandonment.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Respond to the indicated emergency	1.1 Muster signal is identified and appropriate action to respond to the ***identified emergency*** is taken based on established procedures. 1.2 Timing and sequence of individual actions are practiced based on prevailing circumstances and conditions and potential ***dangers and threats to survival*** are minimized. 1.3 ***Life-saving appliances*** are used in accordance with standards operating procedures. 1.4 Recommended swimming techniques are practiced with or without wearing a lifejacket.
2. Board a survival craft	2.1 ***Survival craft*** is boarded and dangers to other survivors are avoided based on recommended method. 2.2 Initial actions after leaving the ship are taken to minimize threats to survival. 2.3 Survival craft equipment and location devices, including radio equipment, are operated based on established procedures and manufacturer's instruction.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Identified emergency	May include: 1.1 Collision 1.2 Fire 1.3 Foundering 1.4 Person falling overboard (man overboard)
2. Dangers and threats to survival	May include: 2.1 Cold water shock 2.2 Hypothermia 2.3 Psychological response to disaster 2.4 Loss of will to live 2.5 Sea sickness 2.6 Dehydration 2.7 Injuries 2.8 Starvation
3. Life-saving appliances	May include: 3.1 Life jackets 3.2 Life buoys 3.3 Hard hats 3.4 Immersion suits and other thermal protective aid 3.5 Rocket line throwing appliances 3.6 Pyrotechnic distress signals 3.7 GMDSS survival craft VHF radios 3.8 Satellite emergency position indicating radio beacons EPIRBs 3.9 SARTs 3.10 Whistles
4. Survival Craft	May include: 4.1 Free fall life boats 4.2 Davit launched life boats 4.3 Life rafts

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 responded to indicated emergency 1.2 boarded survival craft
2. Required Knowledge	2.1 Types of emergency situations and actions to be taken when- 2.1.1 called to survival craft stations 2.1.2 required to abandon ship 2.1.3 in the water 2.1.4 aboard a survival craft 2.1.5 a person falls overboard (man overboard) 2.2 Types, uses and location of life-saving appliances 2.3 Survival craft equipment and how to operate them 2.4 Value of training and drills 2.5 Types and uses of personal protective clothing and equipment
3. Required Skills	3.1 Donning lifejacket 3.2 Donning and using an immersion suit 3.3 Jumping from a height into the water 3.4 Righting an inverted life raft while wearing a lifejacket 3.5 Keeping afloat without a lifejacket 3.6 Taking initial action on boarding survival craft 3.7 Streaming a drogue or sea-anchor 3.8 Operating survival craft equipment 3.9 Operating location devices including radio equipment
4. Resource Implications	The following resources should be provided: 4.1 work place with recommended facilities 4.2 tools and equipment appropriate to the activity 4.3 materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : MINIMIZE THE RISK OF FIRE AND MAINTAIN A STATE OF READINESS TO RESPOND TO EMERGENCY SITUATIONS INVOLVING FIRE

UNIT CODE : MTM 834209

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in performing fire prevention and firefighting activities

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Carry out fire minimization procedures	1.1 Fire hazards on board vessel are identified and action is taken to eliminate or minimize them. 1.2 Responsibilities for checking fire prevention equipment and systems are fulfilled and appropriate action is taken to ensure that they are operational. 1.3 An awareness and understanding of the causes of ***fire and its minimization*** is maintained through participation in fire drills and related instructional programs. 1.4 A state of readiness to respond to ***fire emergencies*** is maintained at all times.
2. Respond to emergencies involving fire	2.1. Emergency situations involving fire are correctly identified in accordance with established nautical practice. 2.2. ***Type of fire*** is identified in accordance with the established classification system for fires. 2.3. Initial action on becoming aware of fire emergency is in conformity with established practices and procedures. 2.4. Action taken is timely and appropriate for seriousness of the fire emergency. 2.5. Action taken on identifying muster signals for a fire emergency is appropriate and complies with established procedures. 2.6. Appropriate precautions and procedures are implemented when responding to electrical fires. 2.7. Appropriate precautions and procedures are implemented when responding to uptake and hydrogen fires. 2.8. Communications are clear and concise at all times and orders are acknowledged in a timely and seamanlike manner.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Fire and its minimization	Fire hazard minimization procedures may include: 1.1. Housekeeping in work areas 1.2. Following of fire safety procedures 1.3. Checking and maintaining shipboard fire prevention systems 1.4. Identification and elimination or minimization of fire hazards 1.5. Precautions when using and storing flammable materials 1.6. Precautions that need to be taken when responding to an electrical fire 1.7. Precautions that need to be taken when responding to uptake and hydrogen fires 1.8. Precautions when using naked flames or welding equipment
2. Fire emergencies	Fire emergencies on board vessel may occur: 2.1. By day or night in both normal and emergency situations 2.2. Under any possible conditions of weather and loading 2.3. While underway 2.4. During berthing and un-berthing operations 2.5. While anchoring or mooring 2.6. While in port 2.7. While moored or at anchor
3. Type of fire	Standard types of fires may include: 3.1 Class A 3.2 Class B 3.3 Class C 3.4 Class F

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 implemented fire prevention and minimization measures and procedures on board vessel 1.2 recognized fire hazards onboard vessel and take appropriate action to eliminate or minimize them 1.3 assessed the operational capability of fire-detection and fire-fighting equipment and systems and initiate any required maintenance or replenishment action 1.4 responded to emergency situations involving fire 1.5 implemented OHS principles and policies when carrying out fire prevention and fire–fighting duties 1.6 communicate effectively with others as required during fire prevention activities and fire emergencies
2. Required Knowledge	2.1 Relevant maritime regulations concerning minimization of the risk of fire on board vessel 2.2 The chemistry of fire and its relationship to materials typically carried on vessels 2.3 Principles underlying the spread of fire and its extinguishment, including the elements of fire and explosion (the fire triangle) 2.4 Types and sources of ignition 2.5 Flammable materials and fire hazards 2.6 Factors that influence the spread of fire 2.7 The importance of constant vigilance in fire prevention and minimization 2.8 The different classes of fire, their characteristics and strategies and equipment needed for their extinguishment 2.9 A basic understanding of the types of fire-detection, fire- fighting equipment and systems used on board vessels, their features, principles of operation and the procedures for their use and maintenance 2.10 Relevant regulations and policies related to the maintenance of fire equipment and systems 2.11 Precautions and procedures that must be followed when responding to electrical fires 2.12 Precautions and procedures that must be followed when responding to uptake and hydrogen fires 2.13 Maritime communication techniques applicable to fire prevention and fire-minimization activities on board vessel 2.14 Problems that can occur with shipboard fire-detection and fire hazards on board a vessel and appropriate action that should be taken 2.15 Sources of information on shipboard fire prevention and minimization

3. Required Skills	3.1 Implementing of fire prevention and minimization measures and procedures 3.2 Identifying and evaluating fire hazards and taking appropriate courses of action 3.3 Responding to simulated and real emergency situations involving fire 3.4 Assessing the operational capability of fire-detection equipment and systems and taking any required maintenance or replenishment action
4. Resource Implications	The following resources should be provided: 4.1 work place with recommended facilities 4.2 tools and equipment appropriate to the activity 4.3 materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : FIGHT AND EXTINGUISH FIRES

UNIT CODE : MTM 834210

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in fighting and extinguishing fires

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Operate portable fire-fighting equipment	1.1 ***Type of fires*** is correctly identified in accordance with accepted fire-fighting practice. 1.2 Correct portable ***fire-fighting equipment*** is selected and used to fight specific classes of fires. 1.3 Class F fires are correctly extinguished with a fire blanket in accordance with accepted fire-fighting practice. 1.4 Correct techniques are applied for the use of hose lines to extinguish ***fires on board a vessel***. 1.5 Where applicable, correct techniques are applied for the setting up of foam making equipment to extinguish B Class fires on board a vessel.
2. Carry out fire-fighting operations	2.1 Fire is extinguished using appropriate procedures, techniques, equipment and fire-fighting agents. 2.2 Correct portable fire-extinguisher(s) are selected and used for the class of fire involved in a fire emergency. 2.3 Appropriate ***safety clothing, appliances and equipment*** is used and safety precautions and procedures are applied when fighting fires in accordance with regulatory requirements, vessel's procedures and established fire-fighting practice. 2.4 The timing and sequence of individual actions when fighting fires onboard a vessel are appropriate to the prevailing circumstances and conditions. 2.5 Search and rescue operations in a smoke filled environment are correctly conducted as a member of a fire-fighting team in accordance with accepted fire-fighting practice. 2.6 Interior fires are extinguished using appropriate fire-fighting equipment and procedures as a member of a fire-fighting team in accordance with accepted fire-fighting practice. 2.7 Lifeline signals are correctly used during interior fire-fighting operations.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Type of fire	Standard types of fires may include: 1.1 Class A 1.2 Class B 1.3 Class C 1.4 Class F
2. Fire-fighting equipment	Fire-fighting equipment, appliances and systems may include: 2.1 Portable fire extinguishers including foam, water, CO 2 , dry chemical and wet foam 2.2 Fire blankets 2.3 CO2 fixed systems 2.4 Foam installations including semi-portable and fixed systems 2.5 Sprinkler systems 2.6 Fire pumps (main and emergency fire pump) 2.7 Fire hoses, hydrants, branches and international shore connection
3. Fire on board a vessel	Fire emergencies on board vessel may occur: 3.1 By day or night in both normal and emergency situations 3.2 Under any possible conditions of weather and loading 3.3 While underway 3.4 During berthing and un-berthing operations 3.5 While anchoring or mooring 3.6 While in port 3.7 While moored or at anchor
4. Safety clothing, appliances and equipment	Safety clothing and equipment may include: 4.1 Fire-resistant clothing 4.2 Self-contained breathing apparatus (SCBA) 4.3 Masks 4.4 Eye and ear protection 4.5 Gloves 4.6 Boots

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 participated in simulated on-boar d fire-fighting activities 1.2 participated in search and rescue and fire-fighting teams 1.3 applied OHS principles and policies when carrying out fire-fighting duties 1.4 communicated effectively with others as required during fire emergencies
2. Required Knowledge	2.1 Knowledge of relevant maritime regulations 2.2 The chemistry of fire and its relationship to materials typically carried on vessels 2.3 Principles underlying the spread of fire and how it is extinguished 2.4 The different types of fire, their characteristics and strategies and equipment needed to extinguish them 2.5 Principles and procedures for the use of self-contained breathing apparatus (SCBA) when fighting fires 2.6 Fire-fighting clothing, outfits and personal safety equipment used when fighting a fire onboard a vessel 2.7 Types fire-fighting appliances, equipment and systems used on board vessels, their features, principles of operation and the procedures for their use and maintenance 2.8 Fixed fire prevention and extinguishing installations used on vessels and their principles of operation 2.9 Fire-fighting techniques, agents and precautions applicable to different types of fire on board a vessel 2.10 Maritime communication techniques applicable to fire-fighting activities onboard a vessel 2.11 Typical problems that can occur with shipboard fire-fighting equipment and operations and appropriate remedial action and solutions 2.12 Sources of information on shipboard fire prevention and extinguishment
3. Required Skills	3.1 Applying fire prevention measures and procedures 3.2 Identifying fire fighting problems and determining appropriate courses of action 3.3 Participating as a member of an interior search and rescue and fire-fighting team on board a vessel 3.4 Determining the operational capability of fire-fighting appliances, equipment and systems
4. Resource Implications	The following resources should be provided: 4.1 work place with recommended facilities 4.2 tools and equipment appropriate to the activity 4.3 materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : TAKE IMMEDIATE ACTION UPON ENCOUNTERING AN ACCIDENT OR OTHER MEDICAL EMERGENCY

UNIT CODE : MTM834211

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in taking immediate action upon encountering an accident or other medical emergency.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Determine the need of casualty	1.1 ***Patient*** condition is determined in accordance with established first aid procedures and the nature of injury or illness is established. 1.2 Probable cause, nature and extent of ***injuries*** is identified and appropriate action is taken to prevent further harm to the victim and to self. 1.3 The position of the patient is adjusted to optimize personal comfort for the medical condition or injury concerned. 1.4 Where there are doubts over the seriousness of the injury or illness and how to treat the patient, assistance is sought from senior officers or shore-based medical advisers.
2. Administer first-aid to the victim	2.1 Appropriate first aid procedures are used to treat the identified injury or illness in accordance with the first-aider's limits of responsibility. 2.2 Aseptic techniques are applied during any wound dressing. 2.3 Hygiene measures are used that are appropriate for the degree of illness or injury. 2.4 Cardio-pulmonary resuscitation techniques are correctly applied where required. 2.5 Condition of the patient is regularly monitored both visually and through appropriate measures of bodily signs. 2.6 Health precautions and disease prevention measures are implemented in accordance with regulatory requirements and company procedures. 2.7 Appropriate action is taken if there are signs of a deterioration in the condition of the patient. 2.8 Where necessary, assistance is provided in the preparation and transporting of the victim.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Patient	May include patient having: 1.1 Heart attack 1.2 Stroke 1.3 Asthma attack 1.4 Diabetes 1.5 Epilepsy seizures
2. Injuries	Injuries on board a vessel may include: 2.1 External bleeding 2.2 An amputation 2.3 A foreign body in the eye 2.4 A penetrating chest wound 2.5 A nose bleed 2.6 Internal bleeding 2.7 Fractures, sprains, strains and dislocations 2.8 Electric shock 2.9 Asphyxia

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 identified and prioritized the need for medical first aid in life-threatening medical emergencies 1.2 administered first aid on board a vessel 1.3 communicated effectively with others during medical emergencies and health care
2. Required Knowledge	2.1 Relevant sections of maritime regulations 2.2 Emergencies, injuries and medical problems that may occur on board a vessel and appropriate action, treatments and solutions 2.3 Relevant OH&S and health legislation and policies 2.4 Duties and responsibilities of the designated first aid officer on board a vessel 2.5 First aid procedures 2.6 Shipboard procedures for: 2.6.1 conducting an initial patient first aid assessment 2.6.2 managing injuries 2.6.3 managing medical emergencies 2.6.4 carrying out resuscitation techniques 2.7 Techniques for care of wounds 2.8 Ways in which disease can spread on board a vessel and ways of preventing the spread 2.9 Legal issues related to the administration of drugs and medicines on board a vessel 2.10 Knowledge of body structures and functions relevant to possible injury, illnesses and disease that may be encountered on board a vessel 2.11 Maritime communication techniques related to health care and receiving radio medical advice from shore-based advisers 2.12 Marine publications containing information on first aid and medical treatment on board a vessel
3. Required Skills	3.1 Providing first-aid on board a vessel 3.2 Identifying and problems and emergencies and taking appropriate courses of action 3.3 Applying aseptic and other precautionary techniques when carrying out first-aid procedures on board a vessel
4. Resource Implications	The following resources should be provided: 4.1 work place with recommended facilities 4.2 tools and equipment appropriate to the activity 4.3 materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : COMPLY WITH EMERGENCY PROCEDURES

UNIT CODE : MTM834212

UNIT DESCRIPTOR : This unit deals with the knowledge and skills required to take appropriate initial action on becoming aware of an emergency on board a commercial vessel in conformance with the established emergency response procedures.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** items are elaborated in the Range of Variables
1. Take action on becoming aware of an emergency	1.1 ***Emergency situations*** are recognized and identified. 1.2 Responses to an emergency situation followed the established vessel's emergency response procedures. 1.3 Correct actions are taken on discovery of an actual or ***potential emergencies/emergency situation*** in accordance with established vessel's emergency response procedures. 1.4 Information given on raising alarm is prompt, accurate, complete and clear.
2. Follow established emergency procedures	2.1 Vessel's contingency plans for emergency response are known and are implemented in real and simulated emergency situations. 2.2 Escape routes and internal and external communications and alarm systems are used in real and simulated emergency situations in accordance with ***regulatory requirements*** and established procedures. 2.3 Emergency communications and alarm signals and systems are understood and required action implemented in accordance with emergency procedures and regulatory requirements. 2.4 Planned damage control procedures for dealing with damage to the vessel and its hull are implemented in accordance with company procedures and regulatory requirements.
3. Follow procedures for the use of various life-saving equipment	3.1 Participation in life saving drills confirms readiness to correctly carry out life-saving procedures and use ***life-saving equipment***. 3.2 Procedures for the use of various shipboard life-saving appliances are followed in accordance with regulatory requirements, manufacturer's instructions and company procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Emergency situations	May include: 1.1 Collision with another vessel 1.2 Explosion on board vessel 1.3 Fire on board vessel 1.4 Impairment of integrity of hull and ingress of water 1.5 Loss of steering control 1.6 Lost of motive power 1.7 Foundering 1.8 Grounding 1.9 Beaching a Vessel 1.10 Person overboard 1.11 Rescue and evacuation of injured personnel
2. Potential emergencies	May occur: 2.1 By day or night 2.2 Under any possible conditions of weather and loading 2.3 While underway 2.4 During berthing and unberthing operations 2.5 While anchoring or mooring 2.6 When bunkering 2.7 During cargo handling operations
3. Regulatory requirements	May include: 3.1 SOLAS convention 3.2 IMO STCW Codes and Convention 3.3 Relevant domestic and international OH&S legislation
4. Life-saving equipment	May include: 4.1 Life jackets 4.2 Exposure and immersion suits 4.3 Survival craft

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 undertook appropriate action in the event of emergency situations 1.2 followed established procedures and regulatory requirements during emergency responses' procedures 1.3 followed procedures for the use of various life-saving equipment 1.4 participated in drills in preparation for the implementation of emergency responses 1.5 communicated effectively with others during emergency responses' procedures
2. Required Knowledge	2.1 Types of emergencies 2.2 Shipboard contingency plans 2.3 Knowledge of relevant maritime regulations 2.4 Relevant OH&S legislation and policies 2.5 Navigational emergencies for vessels and appropriate action and solutions 2.6 Indications of various types of emergency situations and the action to be followed when various types of actual or potential emergency situations are identified 2.7 Emergency alarm signals and systems in use on vessels and procedures to be followed when an emergency alarm is raised 2.8 Escape routes and internal and external communications systems and alarms on board a vessel 2.9 General principles of damage control and the manner in which watertight integrity of hull is maintained on a vessel, including the importance of preparation, control and repair 2.10 Ways of controlling damage during a flooding emergency, including the use of various shipboard items that can be used for damage control purposes such as mattresses, canvas and clothing 2.11 Maritime communication techniques used during navigational emergencies of actual or potential emergency situations are identified 2.12 Emergency alarm signals and systems in use on vessels and procedures to be followed when an emergency alarm is raised 2.13 Escape routes and internal and external communications systems and alarms on board a vessel 2.14 General principles of damage control and the manner in which watertight integrity of hull is maintained on a vessel, including the importance of preparation, control and repair 2.15 Ways of controlling damage during a flooding emergency, including the use of various shipboard items that can be used for damage control purposes such as mattresses, canvas and clothing

3. Required Skills	3.1 Applying navigational emergencies for vessels and appropriate action and solutions 3.2 Applying appropriate action in various types of actual or potential emergency situations 3.3 Using emergency alarm signals and systems 3.4 Using various shipboard items to be used for damage control purposes such as mattresses, canvas and clothing 3.5 Using personal safety equipment
4. Resource Implications	The following resources should be provided: 4.1 simulated workplace environment 4.2 workplace standards, procedures, policies, guidelines 4.3 tools and equipment relevant to work activities
5. Methods of Assessment	Competency in this unit may be assessed through: 5.1 Observation/simulated practical demonstration in responding to emergency situations onboard a commercial vessel, and/or 5.2 Simulation/role plays to test the candidate's knowledge and skills in complying with emergency procedures
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : TAKE PRECAUTIONS TO PREVENT POLLUTION OF THE MARINE ENVIRONMENT

UNIT CODE : MTM834213

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in taking precautions towards protection of the marine environment.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Practice compliance with legislative requirements for protection of the marine environment	1.1 Relevant regulations and procedures for the ***protection of the marine environment*** are identified. 1.2 Appropriate action is taken in day-to-day work to ensure compliance with relevant regulations and procedures for the protection of the marine environment as required. 1.3 Appropriate action is taken where incidences of non-compliance or potential non-compliance are identified in accordance with regulations and procedures. 1.4 Any breach of regulations and procedures concerning protection of the marine environment is rectified and/or reported as required within the limits of the crew's/ officer's responsibility.
2. Practice anti-pollution procedures	2.1 ***Anti-pollution procedures*** applicable to vessel operations are followed in the course of day-to-day work. 2.2 Appropriate ***preventive measures*** are undertaken to prevent pollution of the marine environment in accordance with regulations and procedures. 2.3 Inputs are provided in the preparation of reports and other documentation related to the protection of marine environment in accordance with ***regulations*** and procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Protection of the marine environment	Protection of the marine environment may be observed: 1.1 By day or night in both normal and emergency situations 1.2 Under any possible conditions of sea and weather 1.3 While underway 1.4 During berthing and unberthing operations 1.5 While anchoring or mooring 1.6 While moored or at anchor 1.7 During loading and unloading operations 1.8 During maintenance operations
2. Anti-pollution procedures	Anti-pollution procedures include checking of items and equipment such as: 2.1 Pumps 2.2 Valves 2.3 Emission control equipment 2.4 Water management equipment including: cooling water, ballast water and bilge systems 2.5 Waste storage and recycling equipment 2.6 Ballast management equipment
3. Preventive measures	Preventative measures to protect the marine environment may include: 3.1 Prevention of spillages of cargo 3.2 Prevention of spillage s of fuel and oil 3.3 Control of polluting emissions of gas and smoke 3.4 Effective management of waste, pollution and recycling processes 3.5 Effective management of ballast operations 3.6 Shipboard housekeeping 3.7 Pollution control instructions
4. Regulations	Applicable regulations may include: 4.1 MARPOL Convention 4.2 IMO STCW Code and Convention related to the protection of marine environment 4.3 Relevant international and/or local legislation related to the protection of the marine environment

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 practiced compliance with legislative requirements for protection of the marine environment 1.2 practiced preventative and remedial anti-pollution procedures as per relevant regulations and procedures 1.3 identified typical pollution control problems and take appropriate action 1.4 communicate effectively with others concerning measures to protect the marine environment
2. Required Knowledge	2.1 Relevant legislation, codes of practice, policies and procedures to protect the marine environment 2.2 Impact of shipping on the marine environment and the effects of operational or accidental pollution on it 2.3 Basic environmental protection procedures 2.4 Pollution control problems and related measures to protect the marine environment 2.5 Complexity and diversity of the marine environment 2.6 Requirements under local and/or international legislation and conventions for reporting incidents related to breaches of the statutory codes and measures for the protection of the marine environment
3. Required Skills	3.1 Completing activities aimed at compliance with relevant regulatory requirements for protection of the marine environment 3.2 Identifying and evaluating problems related to compliance with relevant regulations for environmental protection and determining an appropriate courses of action 3.3 Following anti-pollution procedures
4. Resource Implications	The following resources should be provided: 4.1. work place with recommended facilities 4.2. tools and equipment appropriate to the activity 4.3. materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1. Demonstration and questioning of related underpinning knowledge 5.2. Written examination 5.3. Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

UNIT OF COMPETENCY : OBSERVE SAFE WORKING PRACTICES

UNIT CODE : MTM834214

UNIT DESCRIPTOR : This unit deals with the knowledge and skills required to observe established maritime safe working practices.

ELEMENT	PERFORMANCE CRITERIA ***Italicized*** items are elaborated in the Range of Variables
1. Identify and follow workplace procedures for hazard identification and risk control	1.1 Safety regulations and established vessel's safety and hazard control practices and procedures are obtained, interpreted and applied to day-to-day work activities. 1.2 Workplace procedures for Occupational Health and Safety and related work instructions for controlling risks onboard a vessel are followed. 1.3 Workplace procedures for dealing with shipboard accidents, fire and ***emergencies*** are known and followed. 1.4 ***Hazards in the workplace*** are identified and appropriate action is taken to report them and to minimize or eliminate risk to personnel, vessel and the environment. 1.5 Where relevant, procedures and precautions necessary for entry into a pump room, fuel tanks or other confined spaces on a vessel are followed. 1.6 Personal protection clothing and equipment is used in accordance with established shipboard safety practices and procedures. 1.7 Appropriate assistance is provided in the event of a shipboard emergency to secure the vessel and its machinery and equipment and to maintain the safety of the vessel and persons involved. 1.8 Established emergency and contingency plans are followed in the event of a shipboard emergency.
2. Contribute to arrangements for the management of occupational health and safety	2.1 Occupational Health and Safety issues and identified safety hazards are raised with designated personnel in accordance with workplace procedures and relevant occupational health and safety legislation. 2.2 Contributions to occupational health and safety management in the workplace are made within workplace procedures and provisions of relevant legislation. 2.3 Occupational health and safety issues are raised with designated personnel in accordance with workplace procedures and relevant occupational health and safety legislation. 2.4 Contribute to ***participative arrangements*** for occupational health and safety management in the workplace within vessel's procedures and scope of responsibilities and competencies.
3. Take necessary actions to control fatigue	3.1 Fatigue symptoms are recognized and identified. 3.2 Corrective actions are taken on discovery of fatigue in accordance with established company procedures. 3.3 Fatigue management practices are observed at all times. 3.4 Reports related to incidence of fatigue are communicated to appropriate authority in accordance with established company procedures.
4. Complete occupational health and safety records	4.1 Occupational health and safety records for self are completed in accordance with workplace requirements. 4.2 Legal requirements for the maintenance of records of occupational injury and diseases are followed.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Emergencies	May include: 1.1 Loss of propulsion 1.2 Loss of electrical power 1.3 Loss of steerage 1.4 Flooding of vessel 1.5 Fire or explosion 1.6 Loss of refrigeration 1.7 Loss of water making ability 1.8 Fuel oil, lubrication oil, steam and gas leaks 1.9 Overheating and over speed of machinery, governors, emergency trips
2. Hazards in the workplace	May include: 2.1 Moving heavy loads in an unsafe work environment 2.2 Unsecure machinery, components or repair equipment 2.3 Slippery deck 2.4 Welding equipment 2.5 Sharp tools and implements 2.6 Power tools 2.7 Moving and rotating machinery 2.8 Flammable liquids, vapors and fuel 2.9 Using equipment beyond safe working limits 2.10 Poor housekeeping procedures 2.11 Electrical wiring and systems 2.12 Hot pipes and valves (steam, fuel oil, lubricating oil) 2.13 Cold pipes and valves (refrigeration and liquefied gas cargoes) 2.14 Working at heights 2.15 Exposed electrical circuits 2.16 Toxic gases and substances 2.17 Chemicals and other harmful substances 2.18 Damaged cargo and containers
3. Participative arrangements	May include: 3.1 Formal and informal meetings which include occupational health and safety 3.2 Occupational health and safety committees 3.3 Other committees, for example, consultative, planning and purchasing 3.4 Health and safety representatives 3.5 Suggestions, requests, reports and concerns put forward by vessel’s crew to senior officers

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidences that the candidate: 1.1 identified and followed workplace procedures for hazard identification and risk control 1.2 contributed to arrangements for the management of OHS onboard a vessel 1.3 understood and taken necessary actions to control fatigue 1.4 completed OHS records as required 1.5 communicated effectively with others on workplace safety matters
2. Required Knowledge	2.1 Knowledge of relevant maritime and OHS regulations 2.2 ISM Code Safety Management System procedures (where applicable) 2.3 The provisions of OHS Acts, regulations and codes of practice relevant to the workplace, including the rights and responsibilities of the workplace parties under OHS Acts, regulations and codes of practice; 2.4 The ways in which OHS is managed in the workplace, and activities required under OHS legislation, for example: 2.4.1 policies 2.4.2 procedures 2.4.3 plant and equipment maintenance 2.4.4 hazard identification 2.4.5 risk assessment and control 2.4.6 OHS instruction 2.4.7 training and provision of OHS information 2.5 Hazards that exist in the workplace 2.6 The preferred order of ways to control risks (known as the hierarchy of control); 2.7 Workplace OHS procedures relevant to the work being undertaken, including procedures for: 2.7.1 recognizing and reporting on hazards, for example, work area inspections 2.7.2 work operations to control risks, for example, permit to work systems and isolation procedures 2.7.3 responding to accidents, fires and emergencies 2.7.4 raising OHS issues 2.7.5 employee participation in OHS management, for example, consultative or OHS committees and 2.7.6 joint employer/employee inspections 2.8 The meaning of OHS symbols found on signs and labels in the workplace 2.9 Designated personnel responsible for OHS onboard a vessel 2.10 Effects of sleep, schedules, and the circadian rhythm on fatigue 2.11 Effects of physical stressors on seafarers 2.12 Effects of environmental stressors in and outside the ship and their impact 2.13 Effects of schedule changes on seafarer fatigue

3. Required Skills	a. Applying OHS in the workplace, and activities required under OHS legislation, b. Applying order of ways to control risks (known as the hierarchy of control) c. Designating personnel responsible for OHS onboard a vessel d. Communication skills
4. Resource Implications	The following resources should be provided: 4.1 simulated workplace environment 4.2 workplace standards, procedures, policies, guidelines 4.3 tools and equipment relevant to work activities
5. Methods of Assessment	Competency in this unit may be assessed through: 5.1 Observation/simulated practical demonstration in the application of safe working practices and safety hazard control onboard a vessel 5.2 Simulation/role plays to test the candidate's knowledge and skills in the application of safe working practices and hazard control and safety hazard control on a commercial/or training vessel
6. Context of Assessment	6.1 Assessment may be conducted in the workplace or in simulated work environment

UNIT OF COMPETENCY : DEMONSTRATE SECURITY AWARENESS PRACTICES

UNIT CODE : MTM834215

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in demonstrating security awareness practices.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Contribute to the enhancement of maritime security through heightened awareness	1.1 Requirements relating to enhanced maritime security are identified. 1.2 All critical factors relevant to the security and safety of a maritime workplace are monitored continuously during work operations. 1.3 Relevant information concerning the security and safety of a ***maritime workplace*** is recognized and interpreted and timely action is taken in accordance with workplace procedures. 1.4 Changes to work environment and related risks are monitored and managed to ensure a safe outcome to workplace operations. 1.5 A security-related contingency plan action is studied and interpreted and where necessary appropriate action is taken. 1.6 Reports on matters related to vessel security are prepared and submitted to designated personnel in accordance with the ship security plan and company and maritime regulatory requirements.
2. Recognize security threats	2.1 Factors that may adversely affect the security and safety of a maritime workplace are identified. 2.2 Risks to vessel or port security and safety are recognized and reported to ***relevant security personnel*** and appropriate action is taken to control the risk in accordance with workplace procedures and security requirements. 2.3 ***Persons posing potential security risks*** are recognized and reported to relevant security personnel and appropriate action is taken to control the risk in accordance with workplace procedures and security requirements. 2.4 All relevant indications of a ***security situation*** are recognized and appropriate action is taken to alert relevant personnel and/or take appropriate action in accordance with workplace procedures and regulatory requirements.
3. Understand the need for and maintaining security awareness and vigilance	3.1 Security instruction programs are participated in as per company and regulatory requirements. 3.2 Requirements and processes for security awareness and vigilance are identified. 3.3 ***Security and emergency drills*** are participated in accordance with the ship security plan and company and maritime regulatory requirements. 3.4 Inputs to improve/enhance security training programs and drills are provided, where necessary.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Maritime workplace	Workplace may include: 1.1. Vessels 1.2. Port facilities
2. Relevant security personnel	May include: 2.1. Ship security officer 2.2. Port security officer 2.3. Company security officer 2.4. Master or skipper of the vessel 2.5. Other personnel on vessel (in terms of their security awareness, preparedness and vigilance)
3. Persons posing potential security risks	May include: 3.1. Unknown persons photographing vessels or facilities 3.2. Unknown persons attempting to gain access to vessels or facilities 3.3. Unknown persons loitering in the vicinity of vessels or port facilities 3.4. Unknown persons telephoning to ascertain security, personnel or standard operating procedures on a vessel or at a port facility 3.5. Vehicles or small vessels with personnel in them loitering and perhaps taking photographs or drawing diagrams of vessels or facilities 3.6. General aviation aircraft operating in proximity of vessels or facilities 3.7. Unauthorized vendors attempting to sell merchandise 3.8. Persons carrying suspicious parcels which could be bombs 3.9. Unknown persons acting suspiciously 3.10. Unknown persons seeking information from vessel personnel or their families about vessels or port facilities via either face-to-face discussion or email 3.11. Unauthorized workers attempting to gain access to a vessel or port facilities to repair, replace, service or install equipment
4. Security situation	May include:: 4.1. Piracy/hijacking 4.2. Armed robbery 4.3. Bomb threat 4.4. Unidentified objects/explosives on vessel 4.5. Damage to or destruction of port facility 4.6. Damage to or destruction of vessel 4.7. Piracy and other depredations 4.8. Stowaways
5. Security and emergency drills	Security and emergency drills may relate to incidents such as: 5.1. Damage to or destruction of the vessel or port facility (e.g. by explosive devices, arson, sabotage or vandalism) 5.2. Hijacking or seizure of a vessel or of persons on board 5.3. Tampering with cargo or essential vessel equipment or systems or vessel's stores 5.4. Unauthorized access to or use of the vessel (including presence of stowaways) 5.5. Smuggling of weapons or equipment (including weapons of mass destruction) 5.6. Use of the vessel to carry persons intending to cause a security incident (or their equipment) 5.7. Use of the vessel itself as a weapon or as a means to cause damage or destruction 5.8. Attacks from seaward while at berth or at anchor 5.9. Attacks while at sea

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1. contributed to the enhancement of maritime security through heightened awareness 1.2. recognized security threats 1.3. understood the need for and methods of maintaining security awareness and vigilance
2. Required Knowledge	2.1. IMO ISPS Code applicable to vessels and ports 2.2. Procedures for maintaining security awareness 2.3. Relevant security and safety regulations, rules, policies and procedures 2.4. Relevant security personnel on a vessel or at a port facility 2.5. Communication procedures and protocols on matters related to vessel and port security 2.6. Security and safety problems that may be identified when maintaining and managing situation awareness and action that can be taken to overcome them 2.7. Security and safety hazards and risks that may be identified in the maritime workplace and ways of controlling those hazards and associated risks
3. Required Skills	3.1. Applying the above knowledge to the management of situation awareness during workplace operations 3.2. Reading and interpreting instructions, procedures and other information relevant to the maintenance of vessel and port security 3.3. Working as a team with others on matters relevant to the maintenance of vessel and port security 3.4. Selecting and using appropriate communications equipment 3.5. Taking appropriate initiatives related to vessel and port security within limits of role and responsibility 3.6. Interpreting and applying security and safety practices and regulations 3.7. Communicating with others on matters related to vessel and port security 3.8. Modifying activities dependent on differing workplace contingencies, risk situations and environments 3.9. Identifying and solving problems associated with the maintenance of vessel and port security and to report security issues and take appropriate action based on available information 3.10. Monitoring and anticipating security problems and risks and taking appropriate action
4. Resource Implications	The following resources should be provided: 4.1. work place with recommended facilities 4.2. tools and equipment appropriate to the activity 4.3. materials relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting

CORE COMPETENCIES

UNIT OF COMPETENCY : PERFORM NAVIGATION AT THE SUPPORTLEVEL

UNIT CODE : MTM834317

UNIT DESCRIPTOR : This unit identifies the knowledge, skills and attitude required to contribute in the performance of a safe navigational watch at the support level. This unit also covers berthing, anchoring, and other mooring operations.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Contribute to a safe navigational watch	1.1 Orders are understood and communications are made with the officer of the watch on matters relevant to the ***factors in carrying out watchkeeping duties.*** 1.2 ***Element procedures*** for the relief, maintenance and handover of a watch are observed and followed. 1.3 ***Information*** required to maintain a safe watch contained in the International Regulations for preventing collision at sea are correctly recognized/interpreted.
2. Contribute to berthing, anchoring and other mooring operations	2.1 Procedures and order of event for letting go ***mooring lines*** and tug lines, including towing lines are followed as ordered by the officer in charge. 2.2 Procedures and order of event for the use of anchors in various operations are followed in accordance with Safe Working Practices. 2.3 Procedures and order of events associated with mooring to a buoy or buoys are followed as ordered by the officer in charge. 2.4 Tasks required of a rating in preparation for arrival and departure from an anchorage or mooring are completed in accordance with shipboard procedures. 2.5 Communications during mooring and anchor handling operations are clear and timely and involve the correct use of communications equipment where required.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Factors to be considered when carrying out watchkeeping duties	May include: 1.1 Bridge must never be left unattended 1.2 Weather, sea conditions and visibility, in daylight or darkness 1.3 Proximity of navigational hazards 1.4 Use and operational condition of navigational aids 1.5 The operational status of bridge instrumentation, controls and alarms 1.6 Provision on the bridge of unmanned machinery (UMS) controls, alarms and indicators 1.7 Unusual demands on the navigational watch arising from operational conditions 1.8 Traffic density and other activities occurring in the area in which the vessel is navigating 1.9 The size of the vessel and the field of vision available from the coming position 1.10 Attention necessary when navigating in or near traffic separation schemes or other routing measures 1.11 Rudder and propeller control and vessel maneuvering characteristics 1.12 Physical and mental state of the watchkeeper
2. Elements Procedures	May include: 2.1 Command 2.2 Confirmation 2.3 Execution 2.4 Monitoring 2.5 Reporting 2.6 Acknowledgement
3. Information	Information acquired during navigational watch: 3.1 Lights 3.2 Shapes 3.3 Sound Signals 3.4 Vessel traffic situations
4. Mooring Lines	Mooring lines and anchoring equipment include: 4.1 Mooring lines 4.1.1. Headline 4.1.2. Forward spring line 4.1.3. Breast line 4.1.4. Back spring line 4.1.5. Stern Line 4.2 Anchoring equipment 4.2.1. Mooring Winch 4.2.2. Bitts 4.2.3. Chocks 4.2.4. Bollards 4.2.5. Fairleads 4.2.6. Windlass 4.2.7. Anchor 4.2.8. Anchor chain 4.2.9. Stoppers

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 performed watchkeeping in accordance with bridge procedures manual 1.2 performed proper relief and handing over procedures. 1.3 contributed to berthing, anchoring and other mooring operations 1.4 communicated effectively with other members of the bridge team
2. Required Knowledge	2.1 Sections of IMO STCW Code and Convention, as amended dealing with bridge watchkeeping principles. 2.2 Lights, shapes and sound signals as per COLREGS. 2.3 BRM Principles as part of the bridge team 2.4 Function of mooring lines and tug lines 2.5 Capacities, safe working loads, and breaking strength of mooring and anchoring equipment
3. Required Skills	3.1 Identifying light , sounds and shapes 3.2 Demonstrating steering procedures 3.3 Demonstrating watch hand-over procedures 3.4 Handling mooring lines and anchoring equipment 3.5 Using communication equipment
4. Resource Implications	Access is required to opportunities to either: 4.1 Execute watchkeeping using a bridge simulator, meeting the requirements of Section A I/12 of the IMO STCW Code, over an appropriate range of simulated maneuvering situations, weather and loading conditions; and/or 4.2 Conduct watchkeeping on board a training vessel under the direction of the Officer in Charge of the Watch over an appropriate range of situations, weather and loading conditions 4.3 Conduct mooring, unmooring, berthing, unberthing and anchoring operations under the supervision of the officer-in-charge in a simulated environment or a training vessel.
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 practical test using a suitably simulated watchkeeping situation; or 5.2 approved in-service experience, or 5.3 approved training ship experience, or 5.4 written examinations
6. Context of Assessment	6.1 Assessment of competence must comply with the assessment requirements of the relevant maritime regulations 6.2 Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training and/or assessment institution: 6.2.1 Appropriate practical assessment must occur: 6.2.1.1 at the registered training organization, and/or 6.2.1.2 on an appropriate working or training vessel

UNIT OF COMPETENCY : PERFORM CARGO HANDLING AND STOWAGE AT THE SUPPORT LEVEL

UNIT CODE : MTM834318

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude required in performing cargo handling and stowage, securing of cargo and stores. It includes proper handling of dangerous, hazardous and harmful substances and liquids.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Contribute to the proper handling of cargo and Stores	1.1 ***Types of cargo*** carried onboard are properly identified. 1.2 Procedures for safe handling, stowage and ***securing*** of cargoes and stores are practiced based on IMO cargo securing and stowage code.
2. Contribute to proper handling of dangerous, hazardous and harmful substances and liquids	2.1 ***Proper personal protective equipment*** for handling dangerous, hazardous and harmful substances and liquids are used. 2.2 Safety precautions in handling dangerous, hazardous and harmful substances and liquids are followed as per IMDG code are followed.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Types of Cargo	May include: 1.1 Solid Bulk Cargoes 1.2 Unitized Cargoes 1.3 Rolling Cargoes 1.4 Refrigerated Cargoes 1.5 Liquid Cargoes in Bulk
2. Securing	May include: 2.1 Lashing 2.2 Shoring 2.3 Chocking
3. Proper personal protective equipment	May include: 3.1 hard hat (safety helmet) 3.2 safety shoes 3.3 coveralls 3.4 goggles 3.5 ear muff 3.6 working gloves 3.7 dust mask 3.8 welding visor 3.9 safety belt/harness

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 performed the preparation of cargo handling and securing gears and equipment 1.2 carried out proper securing of cargo and stores 1.3 exhibited all required safety, environmental and hazard control precautions and procedures in handling dangerous, hazardous and harmful substances 1.4 communicated effectively with officer in charge during loading and unloading operations
2. Required Knowledge	2.1 Knowledge of sections of relevant to securing of different types of cargo in the CSS code. 2.2 Relevant OH&S and pollution control legislation and policies 2.3 Categories of hazardous materials and substances
3. Required Skills	3.1 Using Standard Maritime Communication Procedures (SMCP) 3.2 Securing of cargo as per ship's securing manual 3.3 Handling of hazardous and dangerous cargo or stores in accordance with established safety practices
4. Resource Implications	The following resources should be provided: 4.4 work place location 4.5 tools and equipment needed to undertake the activities 4.6 material relevant to the proposed activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through: 5.1 Demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting 6.2 Assessment shall be observed while task are being undertaken whether individually or as a team under limited supervision

UNIT OF COMPETENCY : CONTROL THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD AT THE SUPPORT LEVEL

UNIT CODE : MTM834319

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude required to provide and support safe operation of deck equipment and machinery and apply occupational health and safety precautions also in the prevention of pollution in the marine environment.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Contribute to the safe operation of deck equipment and machinery	1.1 Valves and pumps, hoists, cranes, booms, and ***related equipment*** are operated as per safe working practices and within their safe working loads in accordance with equipment operating instruction. 1.2 Winches, windlasses, capstans and related equipment are used and operated within their safe working capacities in accordance with equipment operating instruction. 1.3 Hatches, watertight doors, ports, and related equipment are secured as per safe working practices. 1.4 Fibre and wire ropes, cables and chains, including their construction are marked, used, maintained and properly stowed in accordance with industry standards. 1.5 ***Basic signals*** for the operation of equipment, including winches, windlasses, cranes, and hoists are executed with the operator as per safe working practices. 1.6 ***Anchoring equipment*** under various conditions, such as anchoring, weighing anchor, securing for sea, and in emergencies is operated as per safety management procedures. 1.7 Bosun's chairs and staging are properly rigged and unrigged as per safe working practices. 1.8 Pilot ladders and hoists are rigged and unrigged as per international regulations. Rat-guards and gangways are rigged in accordance with industry standards and local port requirement. 1.9 Marlin spike seamanship skills, including the proper use of knots, splices and stoppers are performed as per industry standards and safe working practices. 1.10 Access arrangements, hatches and hatch covers, ramps, side/bow/stern doors or elevators are operated and secured in accordance with the vessels safety management system procedures. 1.11 ***Pipeline systems*** – bilge and ballast suctions and wells are identified as per the vessel's pumping arrangement. 1.12 Cranes, derricks and winches are maintained and operated within its working capacities in accordance with equipment operating instruction. 1.13 State flag are hoisted and dipped in accordance with the state requirement. Signal flags are hoisted as required in accordance to International Code of Signals.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
2.Apply occupational health and safety precautions	2.1 Shipboard safe working practices are observed at all times as per Code of Safe Working Practices for Merchant Seaman. 2.2 Personal shipboard safety are observed and ***personal protective equipment*** are used in accordance with the vessel's safety management system.
3.Apply precautions and contribute to the prevention of pollution of the marine environment	3.1 Procedures to prevent pollution of the marine environment are followed as per relevant annexes of IMO MARPOL Convention. 3.2 Shipboard pollution prevention equipment are used and maintained in accordance with the vessel Environmental Management System. 3.3 Shipboard marine pollutants are disposed in accordance with the IMO MARPOL Regulations.
4.Operate Survival Craft and rescue boat	4.1 Abandon ship and survival situations are responded to under the prevailing circumstances and conditions with survival craft and rescue boat is launched and operated in accordance with the vessel's safety manual. 4.2 Survival techniques are observed in accordance with safety practices and standards.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Related Equipment	May include: 1.1. Controls 1.2. Switches 1.3. Limit mechanism and switches
2. Basic Signals	May include: 2.1 Hoisting of load 2.2 Lowering of load 2.3 Topping of jib 2.4 Lowering of jib 2.5 Swinging of jib 2.6 Slack away 2.7 Heave away 2.8 Hold
3. Anchoring Equipment	May include: 3.1 Windlass 3.2 Anchor chain 3.3 Anchor 3.4 Anchor lashing 3.5 Chain stopping bar
4. Pipeline System	May include: 4.1 Bilge piping and pumping arrangement 4.2 Ballast piping and pumping arrangement
5. Personal Protective Equipment	May include: 5.1 Safety Helmet 5.2 Ear muff or plug 5.3 Appropriate goggles or face mask 5.4 Coveralls 5.5 Appropriate gloves 5.6 Safety shoes or appropriate boots 5.7 Appropriate protection against weather conditions 5.8 Respiratory equipment (CABA and Air filter) 5.9 Chemical Suits

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 assisted in operation of various deck equipment and machineries 1.2 assisted in maintenance of various deck equipment and machineries 1.3 assisted in rigging of deck equipment 1.4 applied all required safety, environmental and hazard control precautions and procedures during deck operations 1.5 communicated effectively with other deck hands
2. Required Knowledge	2.1 Vessel Safety Management System policies and procedures 2.2 Vessel's Environmental Management System 2.3 Related MARPOL regulations 2.4 Requirement from the Code of Safe Working Practices 2.5 Relevant signals from the International Code of Signals 2.6 Procedures in use of deck machineries 2.7 Techniques and precautions in rigging Bosun's chair and stages. 2.8 Techniques and precautions in rigging Pilot ladder and hoists.. 2.9 Communication techniques and signals during deck operations 2.10 Actions in responding to abandonship and survival situations under the prevailing circumstances and conditions
3. Required Skills	3.1 Operating deck machineries 3.2 Rigging Bosun's chair and stages. 3.3 Rigging and securing of Pilot ladder 3.4 Applying communication techniques and signaling during deck operations 3.5 Operate survival craft and rescue boats
4. Resource Implications	The following resources should be provided: 4.1 work place location 4.2 tools and equipment needed to undertake the activities 4.3 material relevant to the activity and tasks
5. Methods of Assessment	Competency in this unit must be assessed through : 5.1 Practical assessment or demonstration and questioning of related underpinning knowledge 5.2 Written examination 5.3 Portfolio
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting 6.2 Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY : PERFORM MAINTENANCE AND REPAIR AT THE SUPPORT LEVEL

UNIT CODE : MTM834320

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude required to perform support level function for shipboard maintenance and repair under the direction of the responsible Key Rating or Deck Officer in compliance with international regulations and guidelines

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Contribute to shipboard maintenance	1.1 Any ***deterioration or corrosion of a vessel's deck surfaces*** is identified and appropriate maintenance action initiated or carried out in accordance with planned maintenance system (PMS). 1.2 Surface preparation is accomplished applying "prescribed-in" techniques. Marine surfaces are prepared for the application of the required marine coating. 1.3 ***Appropriate paint systems*** is selected and applied for areas aboard a vessel. 1.4 Maintenance materials are obtained, handled, prepared and applied in accordance with OH&S and pollution control requirements, company procedures and manufacturer" instructions. 1.5 Paints, lubricants, cleaning materials and equipment in deck maintenance are used based on ship's procedures. 1.6 Appropriate chemicals, cleaning agents and equipment are selected to clean an assigned area of the vessel and stored after use as per ship's procedures and manufacturer's instructions. 1.7 ***Safety and hazard control procedures*** are followed in accordance with relevant occupational health and safety practices. 1.8 Basic maintenance on deck fittings, equipment and systems are performed according to procedures. 1.9 ***Hand and power tools*** are used and maintained in accordance with manufacturer's manual. 1.10 Records of ***maintenance work carried out*** are completed in accordance with procedures.
2. Contribute to shipboard repair	2.1 Minor faults and imperfections in painted surfaces are repaired in accordance with procedures. 2.2 Routine repair procedures are analyzed and executed as per maintenance procedures. 2.3 Weathered surfaces are restored using cleaners and liquid abrasives in accordance with OH&S and pollution control requirements, planned maintenance procedures and manufacturer's instruction. 2.4 Manufacturer's warning and instructions regarding the use of chemicals and cleaning agents are read, understood and applied.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Deterioration or corrosion of vessel's deck surfaces	May include: 1.1 Corrosion to deck, fittings and equipment 1.2 Weathering of surfaces 1.3 Wearing of fittings and equipment
2. Appropriate paint systems	May include: 2.1. Appropriate paints and painting equipment for a particular surface are selected in accordance with planned maintenance procedures and the paint manufacturer's instruction 2.2. Marine paints are applied using appropriate application equipment in accordance with OH&S requirements, planned maintenance procedures and manufacturer's instruction 2.3. Debris from maintenance activities is disposed of, or stored in accordance with established procedures 2.4. Paint and painting equipment are correctly stored after use
3. Safety and hazard control procedures	May include: 3.1. Personal Protective Equipment is used in accordance with regulations and OHS policy 3.2. Maintenance hazards are identified and action is taken to minimize or eliminate risk to personnel, vessel and environment 3.3. Safety, hazard and pollution control procedures and regulations are followed at all time during maintenance and repair operations
4. Hand and power tools	May include: 4.1 Hand tools including chipping hammers and scrapers 4.2 Electric power tools such as grinders, sanders and drills, 4.3 Pneumatic power tools such as grinders, sanders and drills 4.4 Marine preservative finish application equipment such as brushes, spay guns, rollers 4.5 Rinsing and storing equipment
5. Maintenance work carried out	May include: 5.1. Identification of any deterioration of a deck areas, machinery and fittings 5.2. Cleaning of areas of the vessel 5.3. Repairs of minor faults and imperfections in painted surfaces 5.4. Identification of faulty equipment or fittings and arranging for repair or replacement 5.5. Restoration of weathered surfaces 5.6. Preparation of marine surfaces prior to the application of the prescribed marine coating 5.7. Selection and application of appropriate marine paints for particular surfaces

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate : 1.1 performed rigging of stages and bosun's chair 1.2 performed basic deck maintenance 1.3 carried out cleaning activities 1.4 selected and applied appropriate paint systems for areas aboard a vessel 1.5 checked and performed basic maintenance on deck fittings, equipment and system 1.6 exhibited all required safety, environmental and hazard control precautions and procedures during planned maintenance operations 1.7 communicated effectively with others when carrying out maintenance procedures onboard a vessel
2. Required Knowledge	2.1 Knowledge of sections of relevant regulations 2.2 ISM Code Safety Management System as it is related to planned vessel maintenance 2.3 Relevant OH&S regulations and policies 2.4 Nature and causes of corrosion of marine surfaces and structures and the available method for its control 2.5 Corrosion control measures including surface preparation and painting and antifouling 2.6 Paints and painting equipment used in marine maintenance and the related procedures and precautions to be taken for preparation, application and storage 2.7 Safety, environmental and hazard control precautions and procedures relevant to maintenance operation 2.8 Storage principles of paints, chemicals and cleaning agents used in planned maintenance operations
3. Required Skills	3.1 Rigging of stages and bosun's chair. 3.2 Checking of deck areas, machinery and fittings for corrosion, wear and tear as part routine maintenance procedures. 3.3 Implement planned maintenance program and repairs. 3.4 Dispose debris and waste during planned maintenance operation. 3.5 Mix and apply paints evenly to prepared surfaces and in accordance to company manual.
4. Resource Implications	The following resources should be provided: 4.1 work place location 4.2 tools and equipment needed to undertake the activities 4.3 materials relevant to the activity or tasks
5. Methods of Assessment	Competency in this unit must be assessed through : 5.1 Practical demonstration 5.2 Written examination 5.3 Approved in-service or training ship experience
6. Context of Assessment	6.1 Competency may be assessed in workplace or in a simulated workplace setting 6.2 Assessment shall be observed while task are being undertaken whether individually or in-group

SECTION 3 TRAINING STANDARDS

These guidelines are set to provide the Technical and Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for ABLE SEAFARER DECK NC II (STCW Regulation II/5).

3.1 CURRICULUM DESIGN

Course Title: **ABLESEAFARER DECK NC II (STCW Regulation II/5)**

Nominal Training Duration **18** Hours (Basic Competencies)
60 Hours (Common Competencies)
80 Hours (Core Competencies)

Course Description:

This course is designed to enhance the knowledge, skills and desirable work attitude in Able Seafarer Deck. It covers the basic, common and core competencies.

BASIC COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Participate in workplace communication	1.1 Obtain and convey workplace information. 1.2 Complete relevant work related documents. 1.3 Participate in workplace meeting and discussion.	• Group discussion • Interaction	• Demonstration • Observation • Interviews/ questioning
2. Work in a team environment	2.1 Describe and identify team role and responsibility in a team. 2.2 Describe work as a team member.	• Discussion • Interaction	• Demonstration • Observation • Interviews/ questioning
3. Practice career professionalism	3.1 Integrate personal objectives with organizational goals. 3.2 Set and meet work priorities. 3.3 Maintain professional growth and development	• Discussion • Interaction	• Demonstration • Observation • Interviews/ questioning
4. Practice occupational health and safety	4.1 Evaluate hazard and risks 4.2 Control hazards and risks 4.3 Maintain occupational health and safety awareness	Discussion Plant tour Symposium	• Observation • Interview

COMMON COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1 Survive at sea in the event of ship abandonment	1.1 Respond to the indicated emergency 1.2 Board a survival craft	• Discussion • Lecture • Demonstration • Simulation	• Written • Questioning • Observation • Practical performance
2 Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire	2.1 Carry out fire minimization procedures 2.2 Respond to emergencies involving fire	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
3 Fight and extinguish fires	3.1 Operate portable fire fighting equipment 3.2 Carry out fire fighting operations	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
4 Take immediate action upon encountering an accident or other medical emergency	4.1 Determine need of casualty 4.2 Administer first aid to the victim	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
5 Comply with emergency procedures	5.1. Take action on becoming aware of an emergency 5.2. Follow established emergency procedures	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
6 Take precautions to prevent pollution of the marine environment	6.1. Practice compliance with legislative requirements for protection of the marine environment 6.2. Practice anti-pollution procedures	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
7 Observe safe working practices	7.1. Identify and follow workplace procedures for hazard identification and risk control 7.2. Contribute to arrangements for the management of occupational health and safety 7.3. Understand and take necessary actions to control fatigue 7.4. Complete occupational health and safety records	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance
8 Demonstrate security awareness practices	8.1. Contribute to the enhancement of maritime security through heightened awareness 8.2. Recognize security threats 8.3. Understand the need for and maintaining security awareness and vigilance	• Discussion • Lecture • Demonstration • Simulation	• Observation • Demonstration • Practical performance

Note*: Applicant trainee who already possesses relevant certificate of training and/or certificate of competency in Basic Safety Training (BST) and Security Awareness Training shall not be required to undergo training/ certification on Common Competencies

CORE COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Perform navigation at the support level	1.1 Contribute to a safe navigational watch 1.2 Contribute to berthing, anchoring and other mooring operations	• Demonstration • Discussion • Simulation	• Observation • Practical demonstration and oral examination
2. Perform cargo handling and stowage at the support level	2.1. Contribute to the proper handling of cargo and stores 2.2. Contribute to proper handling of dangerous, hazardous and harmful substances and liquids	• Demonstration • Discussion • Simulation	• Observation • Practical demonstration and oral examination
3. Control the operation of the ship and care for persons on board at the support level	3.1 Contribute to the safe operation of deck equipment and machinery 3.2 Apply occupational health and safety precautions 3.3 Apply precautions and contribute to the prevention of pollution of the marine environment 3.4 Operate survival craft and rescue boats	• Demonstration • Discussion • Simulation	• Observation • Practical demonstration and oral examination • Written Test
4. Perform maintenance and repair at the support level	4.1 Contribute to shipboard maintenance 4.2 Contribute to shipboard repair	• Demonstration • Discussion • Simulation	• Observation • Practical demonstration and oral examination • Written Test

3.2 TRAINING DELIVERY

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of competency-based TVET.

- The training is based on curriculum developed from the competency standards;
- Learning is modular in its structure;
- Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off the job components;
- Allows for recognition of prior learning (RPL) or current competencies
- Training allows for multiple entry and exit; and
- Approved training programs are Nationally Accredited

The competency-based TVET system recognizes various types of delivery modes, both on and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in-industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.
- Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer facilitates the training delivery
- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.
- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire specific competencies prescribed in the training regulations.
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, or audio, video or computer technologies.
- Project-Based Instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applications.

3.3 TRAINEE ENTRY REQUIREMENTS

This section specifies the qualifications of trainees and educational experience. Other requirements like health and physical requirements are also stated. Passing entry written examinations may also be indicated if necessary.

- Holder of Certificate of Proficiency (COP) for Rating Forming Part of Navigational Watch II (STCW Regulation II/4) or
- Must have completed the course on Rating Forming Part of Navigational Watch from an accredited training centers of TESDA/MARINA; and
- Must have passed the medical examination for eyesight and hearing as per DOH Administrative Order No. 2013-0006

LIST OF TOOLS, EQUIPMENT AND MATERIALS FOR ABLE SEAFARER DECK NC II (STCW Regulation II/5)

Recommended list of tools, equipment and materials for a ***batch of 24 trainees*** for ABLE SEAFARER DECK NC II

TOOLS		EQUIPMENT		MATERIALS	
QTY	**DESCRIPTION**	**QTY**	**DESCRIPTION**	**QTY**	**DESCRIPTION**
For the Core Competence - Perform Navigation at the Support Level:					
Integral 1 per class	• Tools inherent for bridge operations are deemed integrated in the full mission bridge simulator. • AVR equipment that can handle the video or PowerPoint presentation materials	1 set	• Bridge simulator • 1 Instructor Station Note: Simulator must have visualization of not less than 225 degrees arc of horizontal visibility capable to simulate ship's standard steering system (hand and auto-pilot), multiple programmed ships' and targets' navigational lights, sound signals, and various state of weather and sea conditions.	 1 pc 1 pc 1 pc 1 pc 1 pc 1 pc 1 pc 1 set 2 pcs 2 pcs 2 pcs 4 pcs 2 pcs	Video or PowerPoint presentation for: • Watch handover procedures and taking orders from the watch officer • Sound and light signals • Applying Rules of the Road • Various emergencies on board • Protection of environment • Vessel's mooring and anchoring arrangements • Bridge team communication to forward and aft stations during mooring/unmooring, berthing/unberthing and anchoring • Vessel's mooring arrangements for the forward or forecastle deck including anchoring arrangement, and at the astern deck. Arrangements shall be able to show operationalization to include, mooring winch, bitts, chocks, bollards, fairleads, windlass, anchor, anchor chain and stoppers. • Mooring rope of at least 50 meters in length and 70 mm diameter with eye on both ends. • Towing wire coiled in a drum of at least 50 meters length and 18 mm diameter with eye on one end and the other end secured in the drum. • Messenger ropes • Stoppers • Heaving lines

TOOLS		EQUIPMENT		MATERIALS	
QTY	**DESCRIPTION**	**QTY**	**DESCRIPTION**	**QTY**	**DESCRIPTION**
For the Core Competence – Perform Cargo Handling And Stowage at the Support Level					
1 per class	• AVR equipment that can handle the video or PowerPoint presentation materials	1 set 1 set	• Various cargo lifting equipment such as, cargo net, cargo hook, spreaders and cargo slings. • Various cargo securing and lashing equipment such as, lashing chain, turnbuckles, pelican hook, wires, clips, cables and tensioning tools.	 1 pc 1 pc 1 pc 1 pc 1 pc 1 pc	Video or PowerPoint presentation for: • Pre-check and precautions required prior to handling ship's cargo gear • Safety procedures and equipment operating instructions in carrying out cargo and stores operations • Safe handling, stowage and securing cargo and stores • Precautions to be observed in handling various types of cargoes such as: heavy lifts, containers, roll on roll off, vehicles, timber and deck cargo. • Precautions required for handling dangerous, hazardous, and harmful substances and liquid including crude oil and petroleum products. • Precautions required when handling LPG and LNG Cargoes. • IMDG Class, labeling, segregation of IMDG cargoes and type of risk associated with each class

TOOLS		EQUIPMENT		MATERIALS	
QTY	**DESCRIPTION**	**QTY**	**DESCRIPTION**	**QTY**	**DESCRIPTION**
For the Core Competence – Control the Operation of the Ship and Care for Persons on Board at the Support Level					
1 per class	• AVR equipment that can handle the video or PowerPoint presentation materials	12 pcs	• Work tables equipped with vice grip for wire splicing and marlinspike works.		Video or PowerPoint presentation for:
12 pcs	• Wire cuter	1 area	• Wall with overhead fittings for rigging boatswain's chair, stages, pilot ladder and accommodation ladder.	1 pc	• Functions and uses of valves and pumps, hoists, cranes, booms and related equipment
12 pcs	• Marlinspike	1 unit	• Lifting gear, i.e. Crane or derrick, actual or simulator that can operate by lifting and lowering cargoes or loads	1 pc	• Functions and uses of winches, windlasses, capstans, and related equipment including its operation.
12 pcs	• Fid			1 pc	• Functions of hatches, watertight doors, ports and related equipment
12 pcs	• Hammer			1 pc	• Purpose of fiber and wire ropes, cables and chains, including their construction, use, markings maintenance and proper stowage.
24 pcs	• Safety goggles			1 pc	• Basic signals for the operation of equipment, including winches, windlasses, cranes, and hoists.
24 pcs	• Working gloves			1 pc	• Operation of anchoring equipment under various conditions, such as anchoring, weighing anchor, securing for sea and in emergencies.
24 prs	• Safety shoes			1 pc	• Procedures in: ○ Rig/unrig bosun's chair and staging ○ Rig and unrig pilot ladders, hoists, rat guards and gangways or accommodation ladders ○ Use marlinspike seamanship skills
24 prs	• Coveralls				
24 pcs	• Safety helmets				
24 pcs	• Safety belts/harness				
4 pcs	• Boatswain's chair with riggings	1 @			
4 pcs	• Stage with riggings				
4 pcs	• Pilot ladder, standard				
1 pc	• Accommodation ladder, with accessories, and safety net	1 unit			
4 pc	• Rat guards				
1 set	• Set of signal flags from A to Z and answering pennants				

TOOLS		EQUIPMENT		MATERIALS	
QTY	**DESCRIPTION**	**QTY**	**DESCRIPTION**	**QTY**	**DESCRIPTION**
For the Core Competence – Control the Operation of the Ship and Care for Persons on Board at the Support Level					
					• Handling deck and cargo-handling gear and equipment such as: o Access arrangements, hatches and hatch covers, ramps, side/bow/stern doors or elevators o Pipeline sytems – bilge and ballast suctions and wells o Cranes, derricks, winches
				1	• Hoisting and dipping flags and the main single flag signals
				1	• Safe working practices and personal shipboard safety including: o Working aloft o Working over the side o Working in enclosed spaces o Permit to work system o Line handling o Lifting techniques and methods of preventing back injury o Electric safety o Mechanical safety o Chemical and biohazard safety o Personal safety equipment
				1	• Preventing pollution of the marine environment
				50 meters each	Ample supply of the following consumables: • Wires for splicing, 18mm diameter • Mooring ropes for splicing, 70mm diameter • Synthetic and fiber ropes for splicing, 18mm diameter

TOOLS		EQUIPMENT		MATERIALS	
QTY	**DESCRIPTION**	**QTY**	**DESCRIPTION**	**QTY**	**DESCRIPTION**
For the Core Competence – Perform Maintenance and Repair at the Support Level					
1 per class	• AVR equipment that can handle the video or PowerPoint presentation materials • Chipping hammer • Angular scraper • Long handle scraper • Power tools: ○ Grinder ○ Sander ○ Drills	1 set	• Complete set of paint spray equipment • Air compressor • Grease gun • Lubricant applicator	1 set	Video or PowerPoint presentation for: • Shipboard Maintenance and Repair to include: ○ Properties, handling and applications of paints, lubrication, cleaning materials and equipment ○ Deck routine maintenance and repairs ○ Surface preparations techniques ○ Understanding manufacturer's safety guidelines and shipboard instructions ○ Safe disposal of waste materials ○ Application, maintenance and use of hand and power tools.
				40 ltrs 20 ltrs 20 ltrs 20 ltrs 24 pcs 24 pcs 24 pcs 24 pcs 24 pcs 20 ltrs 20 ltrs 24 pcs	Ample supply of the following consumables: • Primer, 2 types • Enamel black • Enamel white • Enamel blue • Paint rollers 8" • Paint rollers 6" • Paint rollers 4" • Paint brush 4" • Paint brush 2" • Pain thinners • Cleaning chemicals • Rusty steel plates for paint preparation and painting 1m x 1m x 3mm (thickness)

REMARKS:

1. The tools, equipment and materials for the delivery of the ELEMENT "**Operate Survival Craft and Rescue Boat"** under the CORE COMPETENCY "**Control the Operation of the Ship and Care for Persons on Board at the Support Level"** shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their regulated training program PROFICIENCY IN SURVIVAL CRAFT AND RESCUE BOAT (PSCRB).

2. The tools, equipment and materials for the delivery of the COMMON COMPETENCIES shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their prescribed and regulated training program in BASIC SAFETY TRAINING (BST) and SECURITY AWARENESS TRAINING courses.

3.5 TRAINING FACILITIES
ABLE SEAFARER DECK NC II (STCW Regulation II/5)

The Able Seafarer Deck workshop must be of concrete structure. Based on class of size 24 students / trainees the space requirements for the teaching / learning and circulation areas are as follows:

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
Workshop/Laboratory area: • Bridge simulator with (1) instructor station; • mooring arrangements • seamanship • cargo handling • ship operation • deck maintenance			150 sq. mtrs
• Lecture Room			42
• Learning Resource Center	4.00 x 5.00	20	20
• Wash/comfort room		10	10
• Storage tool room			20
• Circulation Area			50
Total Workshop Area			**292 sq. mtrs**

REMARKS:

1. The training facilities for the delivery of the ELEMENT "**Operate Survival Craft and Rescue Boat"** under the CORE COMPETENCE "**Control the Operation of the Ship and Care for Persons on Board at the Support Level"** shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their regulated training program PROFICIENCY IN SURVIVAL CRAFT AND RESCUE BOAT (PSCRB).

2. The training facilities for the delivery of the COMMON COMPETENCIES shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their prescribed and regulated training program in BASIC SAFETY TRAINING (BST) and SECURITY AWARENESS TRAINING courses.

3.6 TRAINER'S QUALIFICATIONS FOR MARITIME SECTOR

ABLE SEAFARER DECK NC II (STCW Regulation II/5)

TRAINER QUALIFICATION

- Must be a licensed Officer-In-Charge of a Navigational Watch and at least with twelve (12) months seagoing service in the position
- Must be proficient in English communication
- Must be a holder of National TVET Trainer Certificate (NTTC) I - Able Seafarer Deck NC II (STCW Regulation II/5)

REMARKS:

1. The trainer's qualifications for the delivery of the ELEMENT "**Operate Survival Craft and Rescue Boat"** under the CORE COMPETENCE "**Control the Operation of the Ship and Care for Persons on Board at the Support Level"** shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their regulated training program PROFICIENCY IN SURVIVAL CRAFT AND RESCUE BOAT (PSCRB).

2. The trainer's qualification for the delivery of the COMMON COMPETENCIES shall comply with the standards prescribed by the MARITIME INDUSTRY AUTHORITY (MARINA) in their prescribed and regulated training program in BASIC SAFETY RAINING (BST) and SECURITY AWARENESS TRAINING courses.

3.7 INSTITUTIONAL ASSESSMENT

Institutional assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of competency.

SECTION 4 NATIONAL ASSESSSMENT AND CERTIFICATION ARRANGEMENTS

Assessment of an individual's competence leads to the issuance of a Certificate of Proficiency (COP) in the relevant unit of competency.

A Certificate of Proficiency (COP) is issued when a candidate has demonstrated competence in all the units of competency that comprise the relevant promulgated qualification.

1. Candidate wanting to be certified will have to be assessed in accordance with the requirements identified in the evidence guide of the relevant unit/s of competency. As a rule, the unit/s of competency shall be the benchmark for all assessment under the Training Regulations for Maritime Sector.

2. Candidate must have completed the prescribed course of instruction or acquired all the units of competency contained in this Training Regulation and with equivalent sea service experience. The following are qualified to apply for assessment and certification:

   - Holder of COP for Rating Forming Part of Navigational Watch NC II (STCW Regulation II/4); and
   - Have completed TESDA-registered training program for ABLE SEAFARER DECK inclusive of an approved sea going service in the deck department of not less than twelve (12) months on board seagoing vessel of 500 GRT or more, supported by an accomplished Training Record Book as prescribed by the TESDA/MARINA; OR

     Minimum eighteen (18) months sea going service in the deck department and qualified as a rating forming part of a navigational watch on board seagoing vessel of 500 GRT or more, evidenced by a certificate from the manning agency/shipping company which must be reflected in the Seafarers' Identification and Record Book (SIRB) and in addition, a duly accomplished Training Record Book as prescribed by the TESDA/MARINA.

3. Candidates for a COP shall be required to undergo assessment using the methods identified in the units of competency.

4. Conduct of assessment and issuance of certificates shall follow the procedures manuals and implementing guidelines developed for the assessment and certification of Able Seafarer Deck as institutionalized by and between TESDA and MARINA through a Memorandum of Agreement (MOA).

5. Candidates who are found to be competent under the qualification for Able Seafarer Deck as contained in Section 1 shall be awarded with the corresponding Certificate of Proficiency (COP).

COMPETENCY MAP
For Maritime Sector

CORE COMPETENCIES	Steer the ship and also comply with helm orders in the English language	Carry out a watch routine appropriate to the duties of rating forming part of an engine room watch	Perform marine engineering at the support level	Perform mess hall service	Perform maintenance and sanitation of galley equipment and	Prepare side dishes and breakfast meal
	Keep a proper look-out by sight and hearing	Maintain the correct boiler water levels and steam pressure	Perform safe usage of electrical equipment at the support level	Perform housekeeping services	Prepare and cook meat dishes	Prepare and cook poultry products
	Contribute to monitoring and controlling a safe watch	Operate emergency equipment and apply emergency procedures	Perform maintenance and repair at the support level	Provide assistance in receiving and storing provisions	Prepare stocks, sauces and soups	Prepare and cook seafood
	Operate emergency equipment and apply emergency procedures	Perform navigation at the support level	Control the operation of the ship and care for persons on board at the support level	Supervise preparation of meals	Prepare appetizers, salads and sandwiches (hot and cold and open)	Prepare bread products and hot and cold desserts
		Perform cargo handling and stowage at the support level	Perform maintenance and repair at the support level	Perform victualing services	Supervise the maintenance and sanitation of galley equipment and utensils and related areas	Perform stock control
				Assist engineer in the maintenance of main engine	Establish and maintain catering standards	
COMMON COMPETENCIES	Survive at sea in the event of ship abandonment	Minimize the risk of fire and maintain a state of readiness to respond emergency situations involving	Fight and extinguish fire	Take immediate action upon encountering an accident or other medical emergency	Comply with emergency procedures	Take precautions to prevent pollution of the marine environment
	Observe safe working practices	Observe personal hygiene	Practice food safety, sanitation and hygiene	Observe catering health and safety practices	Protect marine environment/ waste segregation mgmt.	Work within multi-cultural and religious environment
	Demonstrate security awareness practices					
BASIC COMPETENCIES	Receive and respond to workplace communication	Work with others	Participate in workplace communication	Work in team environment	Lead in workplace communication	Lead small teams
	Demonstrate work values	Practice basic housekeeping procedures	Practice career professionalism	Practice occupational health and safety	Develop and practice negotiation skills	Solve problems related to work activities
					Use mathematical concepts and techniques	Use relevant technologies

DEFINITION OF TERMS

For the purpose of this training regulations, the words:

1. Accommodation ladder	a portable flight of steps down a ship's side
2. Anchor	an object designed to prevent or slow the drift of a ship, attached to the ship by a line or chain; typically a metal, hook-like or plough-like object designed to grip the bottom under the body of water.
3. Anchor ball	round black shape hoisted in the forepart of a vessel to show that it is anchored.
4. Batten down the hatches	to prepare for inclement weather by securing the closed hatch covers with wooden battens so as to prevent water from entering from any angle
5. Bitt or bitts	a post or pair mounted on the ship's bow, for fastening ropes or cables
6. Boatswain or bosun	A non-commissioned officer responsible for the sails, ropes, rigging and boats on a ship who issues "piped" commands to seamen.
7. Bollard	a substantial vertical pillar to which lines may be made fast. Generally on the quayside rather than the ship.
8. Bearing	the horizontal direction of a line of sight between two objects on the surface of the earth.
9. Bridge	a structure above the weather deck, extending the full width of the vessel, which houses a command center, itself called by association, the bridge
10. Bridge wing	an open-air extension of the bridge to port or starboard, intended for use in signaling
11. Bosun's chair	a short narrow board suspended by a bridle, used to sway a man aloft. For scrapping masts, tarring, rigging, etc.
12. Bulkhead	one of several upright partitions separating various compartments in a vessel preventing passage of oil, water or fire from one part of a ship to another. They serve as an important strength and stiffening members in a vessel's structure
13. Capstan	a large winch with a vertical axis. A full-sized human-powered capstan is a waist-high cylindrical machine, operated by a number of hands who each insert a horizontal capstan bar in holes in the capstan and walk in a circle. Used to wind in anchors or other heavy objects.
14. Chain locker	a space in the forward part of the ship, typically beneath the bow in front of the foremost collision bulkhead, that contains the anchor chain when the anchor is secured for sea.
15. Contaminants	unwanted substances on ship surface such as oil, grease, salt, waste, etc., which would prevent the paint from serving its purpose.
16. Deck	plating or planking secured to, and covering all or part of, any tier of beams; the floor of any compartment
17. Deck stores	storage rooms where deck supplies and materials used in the day to day operation on board a ship are stored
18. Fairlead	a ring, hook or other device used to keep a line or chain running in the correct direction or to prevent it rubbing or fouling.

19. Fid	a tapered wooden tool used for separating the strands of rope for splicing.
20. Flag hoist	a number of signal flags strung together to convey a message
21. Gangway	an opening in the rail or bulwark of a ship through which one can enter or leave the ship
22. Ground tackle	anchors, chains, including apparel.
23. Gyro compass	a mechanical indicator of the direction of the true (geographic) meridian, designed for determining the course of an object, as well as the azimuth (bearing) of the direction of orientation.
24. Hatch	an opening in a ship's deck. Generally rectangular affording access into the compartment below.
25. Helm order	command ordered by pilot or mastering to helmsman in steering a ship.
26. Hold	a general name for the spaces below deck, designated for the stowage of cargo.
27. Holiday	a gap in the coverage of newly applied paint, slush, tar or other Preservative
28. Lashing	materials used for securing by binding, wrapping, e/g/ fastening-rope, chain, canvas
29. Look-out	a seaman stationed in the forecastle or in the crow's nest for the purpose of maintaining watchful eye for any lights, land, or floating objects that may heave in sight, or reporting such to officer of the watch
30. Marlinspike	a metal tool used in rope work for tasks such as unlaying rope, for splicing, untying knots
31. Riggings	ropes and chains used to hold the masts, booms, etc. of vessel. A sailor's palm sailor's thimble, it is for leather and fits over the hand.
32. Splice	join lines (ropes, cables etc.) by unraveling their ends and intertwining them to form a continuous line. To form an eye or a knot by splicing.
33. Safety net	a net placed under the accommodation ladder as a safety precaution for persons embarking and disembarking from the ship
34. Seize	to bind with small stuff, as, one rope to another, a rope to a spur, etc.
35. Slack	a part of something that hangs loose without stain.
36. Stage	a scaffold for workmen usually over the sides of a ship
37. Stocks	supplies, materials, spare parts, tools and other gears kept in storage until needed for use.
38. Stoppers	pieces of fiber ropes or chains about two meters in length, used to hold the mooring lines tight while transferring the lines from the winch drum to be secured on the bits.
39. Synthetic rope	a rope made of nylon, Terylene or any material produced from chemical, mineral sources and general petroleum products
40. Tail rope	is fastened to the end of the jumbo boom of a schooner and used to back the fore stay sail and she will lie-to with sail so trimmed.

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THE TECHNICAL AND INDUSTRY EXPERT PANEL

DECK DEPARTMENT	
CAPT. RODOLFO A. ASPILLAGA Technical Consultant MARINA-STCW Office 6th Floor Parkview Plaza, 984 Taft Ave. cor. T. M. Kalaw, Ermta, Manila	**CAPT. EDWIN M. ITABLE** Vice-President Master and Mates Association of the Philippines (MMAP) Rm. 503/504, 5th Floor, CTC Commercial Bldg. Pedro Gil cor. Taft Ave., Malate, Manila
The PARTICIPANTS in the Validation of these Training Regulations	
CAPT. JONATHAN V. TABINO UFS	**CAPT. FERNANDO J. ALANO** FAME
CAPT. SIMEON E. FLORES PHILSAFE/MMAP	**CAPT. PEDRO U. BERIÑA, JR.** NEWSIM
CAPT. FIDEL V. OJERA PHILCAMSAT	**CAPT. VICTOR DEL PRADO** FAME-FILSCAPT
CAPT. DANNY S TAMPUS UFS	

ENGINEERING DEPARTMENT	
C/E DIOSDADO G. RAMOS General Manager Monsoon Maritime Services Phils., Inc. Unit 103, G/F Marbella Manila Bldg. 2071 Roxas Blvd., Malate, Manila	**C/E FERDINAND R. PASCUA** Member, Board of Marine Engineer Officers Professional Regulation Commission (PRC) P. Paredes St. cor. Morayta St. Sampaloc, Manila
C/E JANVIER PATRICK ROSETE Training Manager for STCW AJ Center for Excellence 2/F Delgado Bldg., 637 Bonifacio Drive South Harbor, Port Area, Manila	
The PARTICIPANTS in the Validation of these Training Regulations	
C/E ANTONINO R. GASCON PROTECT MARINE	**C/E SOLIMAN V. DILAG** EXACT

Members of the TESDA Board
The MANAGEMENT and STAFF of the TESDA Secretariat
TESDA EXCOM
QSO