დანართი 1

ON BOARD TRAINING
RECORD BOOK

FOR CANDIDATES FOR CERTIFICATION AS

ELECTRO-TECHNICAL OFFICER

AS REQUIRED BY THE STCW CONVENTION 1978,
AS AMENDED

2012

Officer trainee

Full Name:		
Home Address:		
Tel:		Mobile:
Email:		

University / College / Training Centre

Name:		
Position:		
University / College / Training Centre		
Address:		
Tel:		Fax:
Email:		
Record Book – Copy No		

Record of Changes

Number	Date of Issue	Pages modified	Author	Brief Description

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Section 1

General information

1.1 Introduction

Purpose

- This On Board Training Record Book (TRB) includes sea training tasks for Electro-Technical Cadets
- On board training of the future Electro-Technical Officers should be done according to the requirements of the International Convention on Standards of Training, Certification and Watch keeping for Seafarers, 1978, as amended in 2010 (STCW 1978/10).

- During this training electrical cadet gains professional skills and experience necessary in the work as an Electro-Technical Officer. On board training skills gained according to the program included in the TRB fulfill the minimum requirements for certification as an Electro-Technical Officer.

- During sea training the cadet learns to combine theoretical knowledge from Maritime University/Training Centre and practice. It allows the future Electro-Technical Officer to learn the job on modern and automated seagoing ships.

- Sea training properly integrated with theoretical education is necessary for an officer of a contemporary ship. Practical training should be completed under supervision of the chief engineer and Designated Shipboard Training Officer (DSTO) and other designated officers. Properly filled TRB is evidence that the electrical cadet has achieved professional skills and experience required in the standards of competence according to the Code A of Convention STCW 1978/10 (Section A-III/6). That is why the TRB should be precisely filled up.

- After completion of shipboard training, TRB is checked and accepted by the University / Training Centre Examination Commission

Scope

- The Onboard Training Record Book for Electro-Technical Officer covering the functions of Electro-Technical Officer, takes full account of competence standards of the 2010 Manila Amendments and includes structured tasks to ensure that those undergoing training meet the requirements for certification stipulated by the 2010 Manila Amendments to the STCW Convention and Code. The code entered into force on 1 January 2012. It requires that seagoing service as part of an approved training program which meets the requirements of section A-III/6 of the STCW Code for certification as an electro-technical officer is documented in a training record book.

Effective date

- This document enters into force on April 15th, 2013 ????

Authority

- Maritime Transport Agency is responsible for approval of this training record book

Background

- Law of Georgia on Education and Certification of Seafarers
- International Convention on Standard of Training, Certification and Watchkeeping for Seafarers

1.2 Guidance for completing Training Record Book

- The trainee should be carried in a supernumerary capacity (i.e. the trainee will have no other duties than that of undertaking the training program and emergency duties). During the seagoing service, the Electro-Technical Cadet is under supervision of chief engineer and is obliged to follow a planned training system which is included in the On Board Training Record Book and to fulfill ship's regulations and work directions. At all times, the trainee should be aware of two identifiable individuals who are immediately responsible for the management of the program of onboard training. The first of these is a qualified seagoing officer, referred to as the "Designated shipboard training officer", who, under the authority of the master, should organize and supervise the program of training. The second should be a person nominated by the company, referred to as the "company training officer", who should have an overall responsibility for the training program and for coordination with training organizations.

- The Electro-Technical Cadet receives his On Board Training Record Book in return for a receipt, in the University/Training Centre which is responsible for his education. Each Book has its own number given and registered by university/training center.

- The Electrical Cadet is personally responsible for completion of the On Board Training Record Book during his whole sea service on different ships.

- Immediately after joining each ship, the Electro-Technical Cadet should:

  - start with shipboard and safety familiarization tasks,
  - record the particulars of the ship.

- Next, during on-board service, the cadet should complete the tasks listed in the On Board Training Record Book and obtain signatures of Designated Shipboard Training Officer and other authorized officers

- DSTO and other authorized officers are designated by chief engineer from on board officers.

- It may be not possible for the cadet to complete some tasks listed in the On Board Training Record Book due to the type of joined ship. In this case, appropriate information should be written at the task which was not completed.

- It is not necessary to complete all tasks on one ship. It can be done on subsequent ships.

- Electro-Technical Cadet should complete the tasks in such a manner, that the DSTO is absolutely sure of satisfactory performance of trainee's competence.

- In some cases Electro-Technical Cadet can be obliged to fulfill the tasks more than once. The decision to repeat the task depends on the DSTO.

- When the Electro-Technical Cadet completes the task, it is understood that he is considered competent in this task. The DSTO or other authorized officers confirm it with their signature in the appropriate space of a given task.

- The On Board Training Record Book should be submitted to the:

  - master and chief engineer after joining the ship and before leaving the ship,
  - chief engineer and DSTO at the end of each month and on each their request, during service on board.

- University / Training Centre shall inspect the On Board Training Record Book to ensure that the candidate for certification as Electro-Technical Officer is considered competent.

- University / Training Centre can extend requirements included in the On Board Training Record Book (e.g. reports, descriptions).

Definitions and clarifications

For the purpose of the Training Record Book, unless expressly provided otherwise:

- The term *"Designated Shipboard Training Officer"* (DSTO) means a qualified seagoing officer who, under the authority of the master, should organize and supervise the program of training;
- The term "*Company training officer*" (CSTO)means a person nominated by the company who should have an overall responsibility for the training program and for coordination with training organizations;
- *Company* means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the company by these regulations

Section 2

Summary record of on board training

2.1 Personal details

Photo

Full name	
Home Address	
Date of Birth	
Number of the Seaman's Discharge Book	
Tel:	**Mobile:**
E-mail:	

2.2 University / College / Training Centre

University / College / Training Centre:	University / College / Training Centre training phases:	
	From	to
Address:		
Tel:		
E-mail: Fax:		

2.3 Companies' details

2.4 A dditional training certificates achieved

Certificate	Number	Date
Elementary First Aid		
Fire Prevention and Firefighting		
Personal Survival Techniques		
Personal Safety and Social Responsibility		
Medical First Aid		
Proficiency in Survival Craft and Rescue Boats		
Advanced Fire Fighting		
Specialized Tanker Training (Oil)		
Specialized Tanker Training (Gas)		
Specialized Tanker Training (Chemical)		

2.5 Sea service record

Ship Name	IMO Number	Type	Gross Tonnage	KW Power	Type of Main Propulsion	Period (Dates)		Total Sea Service		DSTO Signature
						From	To	M	D	

2.6 Task Summary Chart

The purpose of the summary chart is to provide you and authorized training supervisors with continuous check of the tasks which are listed in this Training Record Book.

Write the date of completed tasks, for which your DSTO and other authorized officers considered you to be competent.

In some tables below there is information about minimum amount of tasks to be completed.
The related details can be found in the tables of Section 4 (all together minimum **158** tasks of **179** should be completed).

Function: Electrical, electronic and control engineering at the operational level

4.1.1 Competence: Monitor the operation of electrical, electronic and control systems (Minimum 25 tasks should be completed)														
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
31	**32**	**33**	**34**											

4.1.2 Competence: Monitor the operation of automatic control systems of propulsion and auxiliary machinery (Minimum 7 tasks should be completed)														
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**					

4.1.3 Competence: Operate generators and distribution systems														
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**							

4.1.4 Competence: Operate and maintain power systems in excess of 1,000 Volts														
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**					

4.1.5 Competence: Operate computers and computer networks on ships														
1	**2**	**3**	**4**	**5**										

4.1.6 Competence: Use English in written and oral form														
1	**2**	**3**												

4.1.7. Competence: Use internal communication systems														
1	**2**	**3**	**4**											

Function: Maintenance and repair at the operational level

4.2.1 Competence: Maintenance and repair of electrical and electronic equipment														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31														

4.2.2 Competence: Maintenance and repair of automation and control systems of main propulsion and auxiliary machinery (Minimum 7 tasks should be completed)														
1	2	3	4	5	6	7	8	9						

4.2.3 Competence: Maintenance and repair of bridge navigation equipment and ship communication systems (Minimum 11 tasks should be completed)														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

4.2.4 Competence: Maintenance and repair of electrical, electronic and control systems of deck machinery and cargo-handling equipment (Minimum 9 tasks should be completed)														
1	2	3	4	5	6	7	8	9	10	11	12			

4.2.5 Competence: Maintenance and repair of control and safety systems of hotel equipment														
1	2	3	4											

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

4.3.1 Competence: Ensure compliance with pollution-prevention requirements														
1	2	3	4	5	6	7								

4.3.2 Competence: Prevent, control and fight fire on board														
1	2	3	4	5	6	7	8							

4.3.3 Competence: Operate lifesaving appliances														
1	2	3	4	5										

4.3.4 Competence: Apply medical first aid on board ship														
1	2	3	4											
4.3.5 Competence: Application of leadership and teamwork skills														
1	2	3	4	5	6									

4.3.6 Competence: Contribute to the safety of personnel and ship														
1	2	3	4											

2.7 The On-board Training Record Book review and training assessment for each ship

First Ship **University / College / Training Centre:**			
Full name of authorized training supervisor	**Assessment**	**Date**	**Signature**
Second Ship **University / College / Training Centre:**			
Full name of authorized training supervisor	**Assessment**	**Date**	**Signature**
Third Ship **University / College / Training Centre:**			
Full name of authorized training supervisor	**Assessment**	**Date**	**Signature**
Fourth Ship **University / College / Training Centre:**			
Full name of authorized training supervisor	**Assessment**	**Date**	**Signature**
Fifth Ship **University / College / Training Centre:**			
Full name of authorized training supervisor	**Assessment**	**Date**	**Signature**

2.8 On board training final acceptance as required by STCW Convention

Full name of the officer trainee	**University / College / Training Centre**
Full name of the authorized training supervisor	**On board training accepted with the following result:**
Date	**Signature**

On-board Training Record Book Acceptance Certificate

Required to obtain a Certificate of Electro-Technical Officer – Regulation III/6 of the STCW Convention

This is to certify
that.....
Full name

obtained the acceptance of On Board Training Record Book with
No……

issued by……..
Maritime University / College / Training Centre

University / College / Training Centre
Stamp

…….
Head of the Maritime University / College / Training Centre, which accepts TRB

Section 3

Onboard training record

First Ship

3.1 Shipboard and Safety Familiarization

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
Undertake a conducted safety tour of the ship			
Demonstrate a knowledge of the ship's emergency plans and procedures			
Demonstrate recognition of the alarm signals for Fire, Emergency and Abandon Ship, and a knowledge of the immediate actions you must take on hearing any of these signals			
Demonstrate a knowledge of the immediate actions you must take if you see fire, smoke, a person fall overboard, or any other emergency occurrence			
Locate your Fire, Emergency and Abandon Ship stations			
Locate your life jacket (or approved immersion suit, where carried) and demonstrate the donning procedure			
Locate all survival craft, lifebuoys, additional lifejackets, immersion suits, personal survival equipment, and any other lifesaving appliances			
Locate the ship's distress rockets, flares and line throwing apparatus			
Locate the portable emergency lifeboat radio, lifeboat radios, EPIRBs and SARTs			
Locate all medical and first aid equipment			
Locate all fire fighting equipment including alarm activating points, alarms, extinguishers, hydrants, fire axes and hoses, breathing apparatus, escape sets, firefighter's outfits, escape routes and other emergency equipment on deck and in the engine room			
Locate all equipment spaces, machinery and controls for sprinkler and drenching systems, and demonstrate recognition of associated alarms			
Locate all equipment spaces, machinery and controls for smothering systems (CO_2 and sprinkler) in engine room spaces, pump rooms, cargo holds and tanks, and any other compartments, and demonstrate recognition of associated alarms			
Locate the emergency fire pumps			
Locate the emergency generators			
Locate all the engine room spaces machinery emergency remote stop switches, valves and other controls			
Locate all the fire, weathertight and watertight doors on the vessel, other than hull openings			
Identify the locations where system drawings and instruction manuals are usually kept for on board equipment and demonstrate an understanding of the procedures to record modifications to them			
Demonstrate a knowledge of security procedures			
Demonstrate a knowledge of waste disposal and pollution prevention			

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
procedures			
Demonstrate a knowledge of the location and use of key publications, including the Code Of Safe Working Practices, Emergency Procedures Manuals, Security Procedures manuals, Safety Management System manuals, and Legislation			
Demonstrate an understanding of bridge watchkeeping processes			
Demonstrate an understanding of engine room watchkeeping processes			
Demonstrate an understanding of cargo operations			
Locate all elevators (including passenger elevators on passenger vessels) and identify the safety inspection regime for them and the safety procedures and precautions required to carry out any maintenance or other work activity on them			

Chief Engineer Officer's Signature:	**Date:**

3.2 Ship's particulars

Ship name ss / mv	
Ship type	
IMO Number	
Ship delivery year	

1.	**General**				
	gross tonnage				
	net tonnage				
	length O.A.				m
	Breadth				m
	Depth				m
	summer draught				m
	summer freeboard				m
	Deadweight				t
	light displacement				t
	cargo capacity				m^3
	total ballast capacity				m^3
	fresh water capacity				m^3
	container capacity (20 TEU)				pcs
	passenger capacity				
2.	**Main engine and boiler**				
	main engine (make/ type)				
	type of fuel/daily consumption				t
	bunker capacity				t
	shaft power				kW
	propeller (type/no.)				pcs
	propeller (no. of blades/dia.)				
	service speed				kn
	service r.p.m.				
	boiler (no./make/type)				
	steam pressure and temperature				
3.	**Electrical power plant**				
	main generators (data/no.)	kVA	V	Hz	pcs
	shaft generators (data/no.)	kVA	V	Hz	pcs
	emergency generator (data/no.)	kVA	V	Hz	pcs
4.	**Anchors**				
	port/stb. anchor (type/weight)				
	cable (size/length)				
	windlass or capstans (make/type/no.)				

5.	**Mooring winches**	
	bow (make/type/no./ rope type and diameter)	
	aft (make/type/no./ rope type and diameter)	
6.	**Cargo systems**	
	single cranes (no./SWL/make)	
	twin cranes (no./SWL/make)	
	provision cranes (no./SWL/make)	
	cargo pumps (no./type/rating)	t/hr
	ballast pumps (no./type/rating)	t/hr
7.	**Navigational aids** (make/type)	
	magnetic compass	
	Gyrocompass	
	Log	
	echo sounder	
	Radars	
	ARPA	
	Autopilot	
	GPS	
	AIS	
	VDR	
	ECDIS	
	other electronic navigation aids	
8.	**Communication equipment** (make/type)	
	SATCOM	
	VHF	
	MF/HF	
	NAVTEX receiver	
	EPIRB	
	SART	
	GMDSS radiotelephone	
9.	**Safety equipment** (no./cap./type)	
	life boats	
	life-rafts	
	rescue boats	
	davits (type)	
	lifebuoys	
	Lifejackets	
	immersion suits	

10.	**Firefighting equipment**	
	foam extinguisher (no./cap.)	
	dry powder extinguisher (no./cap.)	
	CO2 extinguisher (no./cap.)	
	hydrants (no./place)	
	fire pumps (no./cap.)	
	fire-hoses (no./dia./length)	
	fire-hose nozzles (no./type)	
	BA – breathing apparatus (no.)	
	EEBD – emergency escape breathing devices (no.)	

3.3 Designated Shipboard Training Officer's Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.4 Chief Engineer Officer's Monthly Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.5 Sea Service Testimonials

Name of vessel: m/v …… IMO Number …..…… Ship type ……..

Company name and address ……

Full name of candidate ……..... Date of birth …….. Rank ……..

Discharge book No ……. On board from ……. to ……...Total sea service M……D…

Characteristics	Excellent	Very good	Good	Satisfactory	Unfit
Professional competence and knowledge					
Attitude and conduct					
Intelligence and sobriety					
Performance of duty assignments					
Cooperation with crew and officers					
Cleanliness and personal appearance					

Recommended for promotion: ☐ Yes, ☐ No.

If yes, to what rank? ……..

If no, explain and indicate what could lead to progress? ……
……
……

Remarks:……
……
……
……

…….. …… ……
Date Chief Engineer Master

Ship stamp

3.6 Specimen Signatures of Officers and other experienced staff authorized to sign off Tasks, Records and Reports

Ship Name and IMO Number: …….. Ship Stamp

All Chief Engineer Officers, DSTO's and all Officers and other personnel who are authorized to sign off tasks, should enter their details as indicated below. This could include ETO – in which case their qualifications and/or Certificate of Competency details should be included.

No rows should be left blank between entries.

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

Second Ship

3.1 Shipboard and Safety Familiarization

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
Undertake a conducted safety tour of the ship			
Demonstrate a knowledge of the ship's emergency plans and procedures			
Demonstrate recognition of the alarm signals for Fire, Emergency and Abandon Ship, and a knowledge of the immediate actions you must take on hearing any of these signals			
Demonstrate a knowledge of the immediate actions you must take if you see fire, smoke, a person fall overboard, or any other emergency occurrence			
Locate your Fire, Emergency and Abandon Ship stations			
Locate your life jacket (or approved immersion suit, where carried) and demonstrate the donning procedure			
Locate all survival craft, lifebuoys, additional lifejackets, immersion suits, personal survival equipment, and any other lifesaving appliances			
Locate the ship's distress rockets, flares and line throwing apparatus			
Locate the portable emergency lifeboat radio, lifeboat radios, EPIRBs and SARTs			
Locate all medical and first aid equipment			
Locate all fire fighting equipment including alarm activating points, alarms, extinguishers, hydrants, fire axes and hoses, breathing apparatus, escape sets, firefighter's outfits, escape routes and other emergency equipment on deck and in the engine room			
Locate all equipment spaces, machinery and controls for sprinkler and drenching systems, and demonstrate recognition of associated alarms			
Locate all equipment spaces, machinery and controls for smothering systems (CO_2 and sprinkler) in engine room spaces, pump rooms, cargo holds and tanks, and any other compartments, and demonstrate recognition of associated alarms			
Locate the emergency fire pumps			
Locate the emergency generators			
Locate all the engine room spaces machinery emergency remote stop switches, valves and other controls			
Locate all the fire, weathertight and watertight doors on the vessel, other than hull openings			
Identify the locations where system drawings and instruction manuals are usually kept for on board equipment and demonstrate an understanding of the procedures to record modifications to them			
Demonstrate a knowledge of security procedures			
Demonstrate a knowledge of waste disposal and pollution prevention			

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
procedures			
Demonstrate a knowledge of the location and use of key publications, including the Code Of Safe Working Practices, Emergency Procedures Manuals, Security Procedures manuals, Safety Management System manuals, and Legislation			
Demonstrate an understanding of bridge watchkeeping processes			
Demonstrate an understanding of engine room watchkeeping processes			
Demonstrate an understanding of cargo operations			
Locate all elevators (including passenger elevators on passenger vessels) and identify the safety inspection regime for them and the safety procedures and precautions required to carry out any maintenance or other work activity on them			

Chief Engineer Officer's Signature:	**Date:**

3.2 Ship's particulars

Ship name ss / mv	
Ship type	
IMO Number	
Ship delivery year	

1.	**General**					
	gross tonnage					
	net tonnage					
	length O.A.					m
	breadth					m
	depth					m
	summer draught					m
	summer freeboard					m
	deadweight					t
	light displacement					t
	cargo capacity					m^3
	total ballast capacity					m^3
	fresh water capacity					m^3
	container capacity (20 TEU)					pcs
	passenger capacity					
2.	**Main engine and boiler**					
	main engine (make/ type)					
	type of fuel/daily consumption					t
	bunker capacity					t
	shaft power					kW
	propeller (type/no.)					pcs
	propeller (no. of blades/dia.)					
	service speed					kn
	service r.p.m.					
	boiler (no./make/type)					
	steam pressure and temperature					
3.	**Electrical power plant**					
	main generators (data/no.)	kVA	V	Hz	pcs	
	shaft generators (data/no.)	kVA	V	Hz	pcs	
	emergency generator (data/no.)	kVA	V	Hz	pcs	
4.	**Anchors**					
	port/stb. anchor (type/weight)					
	cable (size/length)					
	windlass or capstans (make/type/no.)					
5.	**Mooring winches**					
	bow (make/type/no./ rope type and diameter)					

	aft (make/type/no./ rope type and diameter)	
6.	**Cargo systems**	
	single cranes (no./SWL/make)	
	twin cranes (no./SWL/make)	
	provision cranes (no./SWL/make)	
	cargo pumps (no./type/rating)	t/hr
	ballast pumps (no./type/rating)	t/hr
7.	**Navigational aids** (make/type)	
	magnetic compass	
	gyrocompass	
	log	
	echo sounder	
	radars	
	ARPA	
	autopilot	
	GPS	
	AIS	
	VDR	
	ECDIS	
	other electronic navigation aids	
8.	**Communication equipment** (make/type)	
	SATCOM	
	VHF	
	MF/HF	
	NAVTEX receiver	
	EPIRB	
	SART	
	GMDSS radiotelephone	
9.	**Safety equipment** (no./cap./type)	
	life boats	
	life-rafts	
	rescue boats	
	davits (type)	
	lifebuoys	
	lifejackets	
	immersion suits	
10.	**Firefighting equipment**	
	foam extinguisher ……(no./cap.)	
	dry powder extinguisher (no./cap.)	
	CO2 extinguisher …..(no./cap.)	
	hydrants …… (no./place)	
	fire pumps (no./cap.)	
	fire-hoses (no./dia./length)	
	fire-hose nozzles (no./type)	
	BA – breathing apparatus (no.)	

	EEBD – emergency escape breathing devices (no.)	

3.3 Designated Shipboard Training Officer's Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.4 Chief Engineer Officer's Monthly Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.5 Sea Service Testimonials

Name of vessel: m/v …… IMO Number …..... Ship type ……

Company name and address
……..

Full name of candidate ……..... Date of birth …….. Rank
……

Discharge book No ……..On board from ……. to ……...Total sea service M……D……..

Characteristics	Excellent	Very good	Good	Satisfactory	Unfit
Professional competence and knowledge					
Attitude and conduct					
Intelligence and sobriety					
Performance of duty assignments					
Cooperation with crew and officers					
Cleanliness and personal appearance					

Recommended for promotion: ☐ Yes, ☐ No.

If yes, to what rank? ……..

If no, explain and indicate what could lead to progress? ……
……
……

Remarks:……
……
……
……

…….. …… ……
Date Chief Engineer Master

Ship stamp

3.6 Specimen Signatures of Officers and other experienced staff authorized to sign off Tasks, Records and Reports

Ship Name and IMO Number: ……. Ship Stamp

All Chief Engineer Officers, DSTO's and all Officers and other personnel who are authorized to sign off tasks, should enter their details as indicated below. This could include ETO – in which case their qualifications and/or Certificate of Competency details should be included.

No rows should be left blank between entries.

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

……Ship

3.1 Shipboard and Safety Familiarization

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
Undertake a conducted safety tour of the ship			
Demonstrate a knowledge of the ship's emergency plans and procedures			
Demonstrate recognition of the alarm signals for Fire, Emergency and Abandon Ship, and a knowledge of the immediate actions you must take on hearing any of these signals			
Demonstrate a knowledge of the immediate actions you must take if you see fire, smoke, a person fall overboard, or any other emergency occurrence			
Locate your Fire, Emergency and Abandon Ship stations			
Locate your life jacket (or approved immersion suit, where carried) and demonstrate the donning procedure			
Locate all survival craft, lifebuoys, additional lifejackets, immersion suits, personal survival equipment, and any other lifesaving appliances			
Locate the ship's distress rockets, flares and line throwing apparatus			
Locate the portable emergency lifeboat radio, lifeboat radios, EPIRBs and SARTs			
Locate all medical and first aid equipment			
Locate all fire fighting equipment including alarm activating points, alarms, extinguishers, hydrants, fire axes and hoses, breathing apparatus, escape sets, firefighter's outfits, escape routes and other emergency equipment on deck and in the engine room			
Locate all equipment spaces, machinery and controls for sprinkler and drenching systems, and demonstrate recognition of associated alarms			
Locate all equipment spaces, machinery and controls for smothering systems (CO_2 and sprinkler) in engine room spaces, pump rooms, cargo holds and tanks, and any other compartments, and demonstrate recognition of associated alarms			
Locate the emergency fire pumps			
Locate the emergency generators			
Locate all the engine room spaces machinery emergency remote stop switches, valves and other controls			
Locate all the fire, weathertight and watertight doors on the vessel, other than hull openings			
Identify the locations where system drawings and instruction manuals are usually kept for on board equipment and demonstrate an understanding of the procedures to record modifications to them			
Demonstrate a knowledge of security procedures			
Demonstrate a knowledge of waste disposal and pollution prevention			

SHIP NAME:	SHIP TYPE:	IMO NUMBER:	
Task		**Officer's signature**	**Date**
procedures			
Demonstrate a knowledge of the location and use of key publications, including the Code Of Safe Working Practices, Emergency Procedures Manuals, Security Procedures manuals, Safety Management System manuals, and Legislation			
Demonstrate an understanding of bridge watchkeeping processes			
Demonstrate an understanding of engine room watchkeeping processes			
Demonstrate an understanding of cargo operations			
Locate all elevators (including passenger elevators on passenger vessels) and identify the safety inspection regime for them and the safety procedures and precautions required to carry out any maintenance or other work activity on them			

Chief Engineer Officer's Signature:	**Date:**

3.2 Ship's particulars

Ship name ss / mv	
Ship type	
IMO Number	
Ship delivery year	

1.	**General**					
	gross tonnage					
	net tonnage					
	length O.A.					m
	breadth					m
	depth					m
	summer draught					m
	summer freeboard					m
	deadweight					t
	light displacement					t
	cargo capacity					m^3
	total ballast capacity					m^3
	fresh water capacity					m^3
	container capacity……(20 TEU)					pcs
	passenger capacity					
2.	**Main engine and boiler**					
	main engine (make/ type)					
	type of fuel/daily consumption					t
	bunker capacity					t
	shaft power					kW
	propeller (type/no.)					pcs
	propeller (no. of blades/dia.)					
	service speed					kn
	service r.p.m.					
	boiler (no./make/type)					
	steam pressure and temperature					
3.	**Electrical power plant**					
	main generators (data/no.)	kVA	V	Hz	pcs	
	shaft generators (data/no.)	kVA	V	Hz	pcs	
	emergency generator (data/no.)	kVA	V	Hz	pcs	
4.	**Anchors**					
	port/stb. anchor (type/weight)					
	cable (size/length)					
	windlass or capstans (make/type/no.)					
5.	**Mooring winches**					
	bow (make/type/no./ rope type and diameter)					

	aft (make/type/no./ rope type and diameter)	

6.	**Cargo systems**	
	single cranes (no./SWL/make)	
	twin cranes (no./SWL/make)	
	provision cranes(no./SWL/make)	
	cargo pumps (no./type/rating)	t/hr
	ballast pumps (no./type/rating)	t/hr
7.	**Navigational aids** (make/type)	
	magnetic compass	
	gyrocompass	
	log	
	echo sounder	
	radars	
	ARPA	
	autopilot	
	GPS	
	AIS	
	VDR	
	ECDIS	
	other electronic navigation aids	
8.	**Communication equipment** (make/type)	
	SATCOM	
	VHF	
	MF/HF	
	NAVTEX receiver	
	EPIRB	
	SART	
	GMDSS radiotelephone	
9.	**Safety equipment** (no./cap./type)	
	life boats	
	life-rafts	
	rescue boats	
	davits (type)	
	lifebuoys	
	lifejackets	
	immersion suits	
10.	**Firefighting equipment**	
	foam extinguisher (no./cap.)	
	dry powder extinguisher (no./cap.)	
	CO2 extinguisher (no./cap.)	
	hydrants (no./place)	
	fire pumps (no./cap.)	
	fire-hoses (no./dia./length)	
	fire-hose nozzles (no./type)	
	BA – breathing apparatus (no.)	

	EEBD – emergency escape breathing devices (no.)	

3.3 Designated Shipboard Training Officer's Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.4 Chief Engineer Officer's Monthly Reviews of Progress

Comments	Signature	Date
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

3.5 Sea Service Testimonials

Name of vessel: m/v …… IMO Number …..…… Ship type ……

Company name and address ……

Full name of candidate ……..... Date of birth …….. Rank ……

Discharge book No ……On board from ……. to …..……...Total sea service M……D...

Characteristics	Excellent	Very good	Good	Satisfactory	Unfit
Professional competence and knowledge					
Attitude and conduct					
Intelligence and sobriety					
Performance of duty assignments					
Cooperation with crew and officers					
Cleanliness and personal appearance					

Recommended for promotion: ☐ Yes, ☐ No.

If yes, to what rank? ……..

If no, explain and indicate what could lead to progress? ……
……
……

Remarks:……
….
……
……
……

…….. …… ……
Date Chief Engineer Master

Ship stamp

3.6 Specimen Signatures of Officers and other experienced staff authorized to sign off Tasks, Records and Reports

Ship Name and IMO Number: …….. Ship Stamp

All Chief Engineer Officers, DSTO's and all Officers and other personnel who are authorized to sign off tasks, should enter their details as indicated below. This could include ETO – in which case their qualifications and/or Certificate of Competency details should be included.

No rows should be left blank between entries.

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

Date of Entry	Full Name (please print)	Rank	Certificate Grade, Number, Expiry Date, and Issuing Country	Specimen Signature	Specimen Initials

Section 4

List of training tasks and record of achievements

4.1 Function: Electrical, electronic and control engineering at the operational level

4.1.1 Competence: Monitor the operation of electrical, electronic and control systems

No	Task	Ship No	Rank	Initials	Date
	Basic understanding of the operation of mechanical engineering systems: Prime movers, including main propulsion plant				
1.	Participate in maneuvering the main engine from the engine control room position, including starting, stopping and reversing				
2.	Demonstrate knowledge of the main engine fuel oil supply system				
3.	Demonstrate knowledge of the main engine lubricating oil system				
4.	Demonstrate knowledge of the main engine jacket water cooling system				
5.	Demonstrate knowledge of the main engine starting air system				
6.	Demonstrate an understanding of operation principles and adjustment parameters of speed governor				
	Engine-room auxiliary machinery				
7.	Demonstrate knowledge of Auxiliary Engine control systems, alarms and trips				
8.	Demonstrate knowledge of the Auxiliary Boiler operation principles				
9.	Demonstrate knowledge of the procedures for preparation and starting of Auxiliary Boiler				
10.	Demonstrate knowledge of the procedures for routine checking of burner				
11.	Demonstrate knowledge of procedures for the preparation and starting of air compressors				
12.	Demonstrate knowledge of the use and operating principles of centrifugal type pumps				
13.	Demonstrate knowledge of procedures for routine operation and cleaning of fuel oil, diesel oil and lube oil separators				
14.	Demonstrate knowledge of the operation and checking of the fresh water generator				
15.	Demonstrate knowledge of construction of refrigeration and air-conditioning machinery and their operation				
16.	Demonstrate knowledge of procedures for the preparation, starting and stopping of provision refrigeration plant				

No	Task	Ship No	Rank	Initials	Date
	Steering systems				
17.	Demonstrate knowledge of procedures for the preparation, start and pre- sailing test of steering gear				
18.	Demonstrate knowledge of procedures for the routine checks of steering gear during a sea passage				
19.	Demonstrate knowledge of emergency steering gear system and its operation as well as the procedure for the changeover of steering gear operation to an emergency mode				
	Cargo handling systems				
20.	Demonstrate knowledge of the operating principles and starting / stopping procedure for electric motor driven cargo pump				
21.	Demonstrate knowledge of the operating principles and starting / stopping procedure for steam turbine cargo pump				
22.	Demonstrate knowledge of the operating procedures and preparation of IGS for operation				
23.	Demonstrate knowledge of the procedures for operation and checking of cargo/ ballast/ fuel oil handling valves remote system				
24.	Demonstrate knowledge of the operating principles and starting / stopping procedure for electric deck cranes				
25.	Demonstrate knowledge of the operating principles and starting / stopping procedure for hydraulic deck cranes				
26.	Demonstrate knowledge of the operating principles and operating procedures of hatch covers				
27.	Demonstrate knowledge of the operating principles and starting / stopping procedure for provision cranes				
	Deck machinery				
28.	Demonstrate knowledge of the operating principles and starting / stopping procedure for electric mooring winches, windlasses and capstans				
29.	Demonstrate knowledge of the operating principles and starting / stopping procedure for hydraulic mooring winches, windlasses and capstans				
30.	Demonstrate knowledge of the operating principles for life boats and gangway winches				
31.	Demonstrate knowledge of the operating principles and starting / stopping procedure for hatch cover winches				
	Hotel systems				
32.	Demonstrate knowledge of the construction and operating principles of galley equipment				

No	Task	Ship No	Rank	Initials	Date
33.	Demonstrate knowledge of the construction and operating principles of laundry and hotel services				
34.	Demonstrate knowledge of the construction and operating principles of personal lifts				

4.1.2 Competence: Monitor the operation of automatic control systems of propulsion and auxiliary machinery

No	Task	Ship No	Rank	Initials	Date
Preparation of control systems of propulsion and auxiliary machinery for operation					
1.	Demonstrate knowledge of operations necessary to prepare and start the main engine				
2.	Demonstrate knowledge of operations necessary to shut down and prepare main engine to the harbor condition				
3.	Demonstrate knowledge of the procedure for change over the main engine control from ECR to emergency maneuvering position				
4.	Demonstrate an understanding of procedure for controlling the main engine from the emergency maneuvering position, including start, stop, reverse or CPP or reverse clutch operation				
5.	Demonstrate knowledge of the procedures for the preparation and starting of Auxiliary Engines				
6.	Demonstrate knowledge of the procedures for preparation and starting of Auxiliary Boiler				
7.	Demonstrate knowledge of procedures for the preparation and starting of air compressors				
8.	Demonstrate knowledge of procedures for the preparation, starting and operation of air compressors				
9.	Demonstrate knowledge of procedures for the preparation, starting and stopping of provision refrigeration plant				
10.	Demonstrate knowledge of procedures for the preparation, starting and stopping of air conditioning system for summer and winter conditions				

4.1.3 Competence: Operate generators and distribution systems

No	Task	Ship No	Rank	Initials	Date
	Coupling, load sharing and changing over generators **Coupling and breaking connection between switchboards and distribution panels**				
1.	Demonstrate an understanding of the requirements to prepare and run a diesel or steam generator				
2.	Demonstrate an ability to take control, parallel the incoming machine with running machinery, transfer load and shut down outgoing machinery				
3.	Demonstrate an understanding of the electrical generation and distribution system on board, including system configuration where appropriate				
4.	Demonstrate knowledge of construction and operation of the main and emergency switch boards				
5.	In relation to the vessel's main switchboard demonstrate an understanding of the application of: a) Voltmeter b) Ammeter c) Wattmeter d) Synchroscope e) Power factor meter f) Earthing meter				
6.	Demonstrate an understanding of the operation and purpose of the following trips and safety features in relation to a main switchboard circuit breaker: a) Overload relay b) Reverse power trip c) Low frequency trip d) Preferential trip e) Under voltage relay Explain how they are tested				
7.	Demonstrate an understanding of the procedure required on board following a total electrical power failure				
8.	Demonstrate an understanding of the procedure to be followed after main electrical system failure				

4.1.4 Competence: Operate and maintain power systems in excess of 1,000 Volts

No	Task	Ship No	Rank	Initials	Date
	Safe operation and maintenance of high voltage systems, including knowledge of the special technical type of high voltage systems and the danger resulting from operational voltage of more than 1,000 Volts – where fitted				

No	Task	Ship No	Rank	Initials	Date
1.	Demonstrate an understanding of the use and operation of the following HV equipment: a) Switchboards b) Transformers c) Protection Relays d) Tripping and auxiliary supplies e) Earthing f) Lockout Systems and Key Safes				
2.	Demonstrate an understanding of the purpose of the following: a) Appreciation of fault levels, b) Marine application of electrical protection				
3.	Demonstrate an understanding of the role and purpose of the following protective systems: a) Discrimination b) Protective devices c) Feeder protection d) Transformer protection e) Motor protection f) Generator protection g) Bus-bar zone protection				
4.	Understand the procedures for recording HV activities before, during, and on completion of the planned maintenance or inspection work				
Electrical propulsion of the ships, electrical motors and control systems where fitted					
5.	Demonstrate an ability to operate the following electrical propulsions systems: a) Main propulsion motor b) Bow/stern thrusters unit c) Other large variable speed drives				
6.	Understand the procedures for: Manoeuvring the propulsion units from ECR; including stopping, starting following Bridge commands				
7.	Demonstrate an ability to carry out routine testing of propulsion systems (such as prior to sailing), unit alarms and trips				
8.	Demonstrate an ability to make adjustments to propulsion motor operational parameters (e.g. max power) and generator supply system priority				
9.	Describe the following systems: a) HV distribution system for propulsion systems b) LV distribution system for propulsion systems c) Propulsion motor cooling systems				

No	Task	Ship No	Rank	Initials	Date
10.	Demonstrate an understanding of the procedure to be followed after main electrical system failure (black-out)				

4.1.5 Competence: Operate computers and computer networks on ships

No	Task	Ship No	Rank	Initials	Date
Main features of data processing, construction and use of computer networks on ships bridge-based, engine-room-based and commercial computer use					
1.	Demonstrate an understanding of the process to re-install software on a stand-alone or networked pc				
2.	Demonstrate an ability to replace and reconfigure a pc connected to an internal network				
3.	Demonstrate an ability to back-up data from a pc storage device e.g. hard drive or similar				
4.	Demonstrate an ability to isolate and reset/restart one internal communication system on board				
5.	Demonstrate an ability to isolate and reset/restart the computer network system				

4.1.6 Competence: Use English in written and oral form

No	Task	Ship No	Rank	Initials	Date
Adequate knowledge of the English language to enable the officer to use engineering publications and to perform the officer's duties					
1.	Demonstrate an ability to communicate in English language with ship officers and the other crew members				
2.	Demonstrate an ability to use and understand engineering publications in English language				
3.	Demonstrate an ability to prepare in English language several documents, i.e. reports of the works carried out, materials and spare parts orders, shipyard planned maintenance list				

4.1.7 Competence: Use internal communication systems

No	Task	Ship No	Rank	Initials	Date
Operation of all internal communication systems on board					
1.	Demonstrate an ability to operate the internal telephone system (PABX)				

No	Task	Ship No	Rank	Initials	Date
2.	Demonstrate an ability to operate emergency telephone system (sound powered)				
3.	Demonstrate an ability to operate portable VHF equipment				
4.	Demonstrate an ability to operate public address system				

4.2 Function: Maintenance and repair at the operational level

4.2.1 Competence: Maintenance and repair of electrical and electronic equipment

No	Task	Ship No	Rank	Initials	Date
Safety requirements for working on shipboard electrical systems, including the safe isolation of electrical equipment required before personnel are permitted to work on such equipment					
1.	Demonstrate knowledge of Personal Protective Equipment (PPE) used on board for different tasks				
2.	Demonstrate knowledge of the procedure to isolate and lock electrical equipment and apply necessary safety measures				
3.	Identify the various hazardous areas on board your vessel and understand what electrical equipment can be fitted within each of these zones				
4.	Demonstrate knowledge of special precautions to be taken for electrical equipment maintenance in hazardous areas				
Maintenance and repair of electrical system equipment, switchboards, electric motors, generator and DC electrical systems and equipment. Detection of electric malfunction, location of faults and measures to prevent damage. Construction and operation of electrical testing and measuring equipment					
5.	Demonstrate an ability to use and understand the limitations of common test equipment and instruments required for each of the maintenance activities below				
6.	Demonstrate an ability to carry out routine testing and maintenance to a fluorescent light fitting and other lights				
7.	Demonstrate an ability to carry out routine testing and maintenance to the main emergency storage batteries				
8.	Demonstrate an ability to carry out the routine maintenance and testing of an electric motor and its associated starter				
9.	Demonstrate an ability to carry out routine maintenance and testing of main switchboard circuit breakers				
10.	Demonstrate an ability to carry out routine electrical maintenance to generators				
11.	Demonstrate an ability to carry out routine electrical maintenance and testing of the emergency generator				
12.	Demonstrate an ability to locate low insulation of the 400 (440) V AC circuits				

No	Task	Ship No	Rank	Initials	Date
13.	Demonstrate an ability to locate low insulation of the 230 (110) V AC circuits				
14.	Demonstrate an ability to locate low insulation of the 24 V DC circuits, supplied from storage batteries				
15.	Demonstrate an ability to carry out routine insulation test (megger test) of generators and all electrical equipment supplied from ship electrical system				
16.	Demonstrate an understanding of the PMS system on board				
17.	Understand the procedures for recording Planned Maintenance System (PMS) activities on board				
18.	Demonstrate an ability to carry out the electrical maintenance to UPS units (where fitted)				
Function and performance tests of the following equipment and their configuration: .1 monitoring systems .2 automatic control devices .3 protective devices					
19.	Demonstrate an ability to carry out the repair and final testing to machinery alarm system defects				
20.	Demonstrate an ability to carry out routine testing and maintenance to fire detection systems				
21.	Demonstrate an ability to monitor the operation, set and record parameters of PID controller				
22.	Demonstrate an ability to check and align a PT100 unit or thermocouple				
23.	Demonstrate an ability to check, calibrate, align and test a pressure transmitter				
24.	Demonstrate an understanding of the operation of a valve remote control system				
25.	Understand the procedures for the change over operation of a control system into manual control				
26.	Demonstrate an ability to align and test a level transducer				
27.	Demonstrate an understanding of distributive control/instrumentation automation system (DCS/IAS) operations				
The interpretation of electrical and electronic diagrams					
28.	Demonstrate knowledge of different types of electrical diagrams and used symbols				
29.	Demonstrate an ability to interpret electrical diagrams				
30.	Demonstrate knowledge of different types of electronic diagrams and used symbols				
31.	Demonstrate an ability to interpret electronic diagrams				

4.2.2 Competence: Maintenance and repair of automation and control systems of main propulsion and auxiliary machinery

No	Task	Ship No	Rank	Initials	Date
1.	Demonstrate an ability to carry out routine maintenance and repairs to the control equipment of main engine				
2.	Participate in carrying out the routine testing of the main engine safety trips and alarms				
3.	Demonstrate an ability to carry out routine maintenance and repairs to the control equipment of auxiliary engines				
4.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of the boilers				
5.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of the air compressors				
6.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of FO or LO purifiers				
7.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of the refrigeration or air condition compressors				
8.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of provision or cargo refrigerated chambers				
9.	Demonstrate an ability to carry out routine testing and maintenance to the control systems of engine room crane				

4.2.3 Competence: Maintenance and repair of bridge navigation equipment and ship communication systems

No	Task	Ship No	Rank	Initials	Date
1.	Demonstrate an ability to use common test equipment and instruments required for each of the maintenance activities below				
2.	Demonstrate an ability to carry out routine maintenance to a radar system				
3.	Demonstrate an ability to carry out routine testing and maintenance to a navigation light				
4.	Demonstrate an ability to carry out routine maintenance of the GMDSS equipment				
5.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the GPS receivers				

No	Task	Ship No	Rank	Initials	Date
6.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the AIS or LRIT system				
7.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the echo sounder units				
8.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the speed log system				
9.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the voyage data recorder system				
10.	Demonstrate an ability to carry out routine testing or non-routine maintenance to the gyro unit				
11.	Demonstrate an ability to carry out the routine testing of the main steering gear system from the bridge				
12.	Demonstrate an ability to carry out routine testing or maintenance to the steering gear units within the steering gear space				
13.	Demonstrate an ability to carry out routine testing or maintenance to the main or emergency ship's whistle				
14.	Demonstrate an ability to carry out routine testing or maintenance to the main MF/HF transceivers and aerial system				
15.	Demonstrate an ability to carry out routine function testing or maintenance to the main satellite communication terminal				

4.2.4 Competence: Maintenance and repair of electrical, electronic and control systems of deck machinery and cargo-handling equipment

No	Task	Ship No	Rank	Initials	Date
1.	Participate in and demonstrate knowledge of the routine maintenance of anchor/ mooring winches and capstans				
2.	Participate in and demonstrate knowledge of the routine maintenance of life boat launching devices				
3.	Participate in and demonstrate knowledge of the routine maintenance of gangway lifting device				
4.	Participate in and demonstrate knowledge of the routine maintenance of provision cranes				
5.	Participate in and demonstrate knowledge of the routine maintenance of hatch covers closing system				
6.	Participate in and demonstrate knowledge of maintenance and testing of cargo pumps, if applicable				
7.	Participate in and demonstrate knowledge of maintenance and testing of cargo steam stripping pumps				

No	Task	Ship No	Rank	Initials	Date
8.	Participate in and demonstrate knowledge of maintenance and testing of electrically driven ballast / anti- heeling pumps, including drive motor				
9.	Participate in and demonstrate knowledge of maintenance and testing of inert gas system, if applicable				
10.	Participate in and demonstrate knowledge of the maintenance and testing of cargo handling cranes/ winches				
11.	Demonstrate an ability to dismantle and reassemble one item of hazardous area equipment				
12.	Demonstrate an ability to carry out the electrical maintenance to watertight door or powered ramps (where fitted)				

4.2.5 Competence: Maintenance and repair of control and safety systems of hotel equipment

No	Task	Ship No	Rank	Initials	Date
1.	Demonstrate an ability to carry out routine electrical maintenance to galley and pantry equipment				
2.	Demonstrate an ability to carry out the electrical maintenance to laundry and hotel services				
3.	Demonstrate an ability to carry out the electrical maintenance to personal lift				
4.	Demonstrate an ability to carry out the electrical maintenance to provision lift				

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

4.3.1 Competence: Ensure compliance with pollution-prevention requirements

No	Task	Ship No	Rank	Initials	Date
Knowledge of the precautions to be taken to prevent pollution of the marine environment Anti-pollution procedures and all associated equipment Importance of proactive measures to protect the marine environment					
1.	Participate in and demonstrate knowledge of the routine maintenance of bilge water separator				
2.	Participate in and demonstrate knowledge of the routine maintenance of sewage treatment unit				

No	Task	Ship No	Rank	Initials	Date
3.	Participate in inspection and maintenance of ship incinerator burner, blower and combustion chamber				
4.	Demonstrate knowledge of the Company's rules regarding prevention of sea pollution				
5.	Demonstrate knowledge of procedures of collecting, sorting, storing and disposing of garbage (dry garbage, waste, glass, metal, plastics, oil containing liquids, etc.)				
6.	Demonstrate knowledge of ship equipment for handling and storing wastes				
7.	Demonstrate knowledge of procedures and actions in case of pollution, or danger of pollution of the marine environment				

4.3.2 Competence: Prevent, control and fight fire on board

No	Task	Ship No	Rank	Initials	Date
	Ability to organize fire drills Knowledge of classes and chemistry of fire Knowledge of fire-fighting systems Action to be taken in the event of fire, including fires involving oil systems				
1.	Demonstrate a knowledge of how to: - operate the fixed fire fighting system for accommodation, engine room, pump room/cargo spaces as applicable - operate automatic and manual fire flaps, fire doors, watertight doors, ventilation and air conditioning systems - operate emergency shut off valves, pump stops, main engine stops - start the main and emergency fire pumps and emergency generator				
2.	Demonstrate an ability to undertake the role of any emergency team member in an accommodation fire drill				
3.	Demonstrate an ability to undertake the role of any emergency team member in an open deck oil/gas fire drill				
4.	Demonstrate an ability to undertake the role of any emergency team member in a machinery space fire drill				
5.	Demonstrate an ability to undertake the role of any emergency team member in a low visibility accommodation search and rescue drill				
6.	Demonstrate an ability to undertake the role of any emergency team member wearing BA in a poor visibility accommodation or machinery space casualty search drill.				
7.	Demonstrate an ability to undertake the role of any emergency team member in an enclosed space casualty rescue drill.				

No	Task	Ship No	Rank	Initials	Date
8.	Demonstrate an ability to recharge a range of portable fire extinguishers				

4.3.3 Competence: Operate life-saving appliances

No	Task	Ship No	Rank	Initials	Date
Ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids					
1.	Demonstrate an ability to perform effectively as a team member displaying awareness for the safety of self and others at all times				
2.	Demonstrate an ability to communicate clearly with the bridge, other shipboard locations, team members, and others providing external assistance				
3.	Demonstrate an ability to: - take charge of the preparation of survival craft and rescue boats for launching - take charge of launching survival craft and rescue boats - take charge of and handle survival craft and rescue boats after launching - give appropriate orders for the preparation and launching of survival craft and rescue boats - instruct team members and passengers in abandonment and survival procedures				
4.	Demonstrate an ability to: - locate and explain the correct procedure for operating pyrotechnics and line throwing apparatus - locate and explain the correct procedure for operating emergency radio equipment, EPIRB and SART				
5.	Demonstrate an ability to undertake the role of any team member in a man overboard drill				

4.3.4 Competence: Apply medical first aid on board ship

No	Task	Ship No	Rank	Initials	Date
Practical application of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board ship					
1.	During relevant drills : stop excessive bleeding, ensure breathing and put casualties in proper position, in compliance with accepted recommendations given in international medical first aid guidance				
2.	During relevant drills : detect signs of shock and heat stroke and act accordingly requesting Medical Radio for advice				

No	Task	Ship No	Rank	Initials	Date
3.	During relevant drills : treat burns, scalds, fractures and hypothermia				
4.	During relevant drills : locate and access shipboard medicine and equipment				

4.3.5 Competence: Application of leadership and teamwork skills

No	Task	Ship No	Rank	Initials	Date
Working knowledge of shipboard personnel, management and training Ability to apply task and workload management Knowledge and ability to apply effective resource management Knowledge and ability to apply decision-making techniques					
1.	Got acquainted with the systems of shipboard personnel management and training				
2.	Understand the importance and need for training a leadership and teamwork skills				
3.	Demonstrate ability to effective communication on board and ashore				
4.	Understand the need for planning the allocation of tasks including prioritization				
5.	Observe results of effective management experience and skills of the crew				
6.	In carrying out the tasks to acquire self-confidence and develop leadership skills				

4.3.6 Competence: Contribute to the safety of personnel and ship

No	Task	Ship No	Rank	Initials	Date
Knowledge of personal survival techniques Knowledge of fire prevention and ability to fight and extinguish fires Knowledge of elementary first aid Knowledge of personal safety and social responsibilities					
1.	Demonstrate the certificate of “Personal survival techniques” training				
2.	Demonstrate the certificate of “Fire prevention and ability to fight and extinguish fires” training				
3.	Demonstrate the certificate of “Elementary first aid” training				
4.	Demonstrate the certificate of “Personal safety and social responsibilities” training				

Section 5

Electro-Technical Operations Workbook Guidance

5.1 Workbook Guidance

The Electro-Technical Operations Workbook is an integral part of the TRB. Its purpose is to provide you with a place to record examples of relevant calculations, observations, diagrams, sketches, events and activities arising from your duties and training undertaken on a vessel. This will provide information and evidence for officers and other personnel authorized to sign off tasks in your TRB to judge when a particular task can be signed off as proficient.

This supporting evidence for tasks in the TRB will be checked by the University / Training Centre authorized training supervisor prior to a final decision of on board training acceptance.

Further details may be given to you by your training provider (college/university) prior to commencing your sea service, with regard to the particular training program or scheme you are undertaking. The workbook can be added as loose leaf pages into the TRB in this section, or may be a separate notebook provided for the purpose.

Use of the Workbook

You are being asked for examples of your calculations and your experience which in some cases are necessary to show completion of tasks in your TRB. Record the unusual – you may never be on a vessel that hangs off an anchor or pulls the tail shaft but if you do then record your involvement!

- Your workbook is not intended to be a daily dairy
- It is a place to keep examples of relevant calculations, diagrams etc
- You are not expected to rewrite text books or copy large sections of operational manuals or makers' instructions
- As well as being used for assessment your workbook should be well-referenced as it may be used for information later in your training and your on going career

Workbook entries

For easy referencing the workbook should be divided into sections corresponding to the main task sections in the TRB. Each of your entries must include:

- Date
- Name and rank of confirming officer

All calculations must be shown in full, together with all the working. You do not need to provide lengthy, detailed descriptions of events or activities, but you should use:

- bullet points and short notes,
- labelled photographs,
- neat, tidy and accurate diagrams and sketches.

Examples of Types of Entries

Examples are given below of what should be recorded: this list is neither definitive nor exhaustive and you are expected to exercise your judgment in what you include.

Safety – Emergency and security drill scenarios

- What was the intention of the drill?
- What part did you play in the drill?
- What was noted at the debriefing – i.e. What went well? What went wrong?

Marine Engineering and Electro-Technical Maintenance

- What maintenance was being carried out?
- Why was it being carried out?
- What was your involvement?
- Was there additional work carried out above that expected – if so why?

Examples of marine engineering and electro-technical maintenance include:

- maintenance and testing of a range of different sorts of equipment;
- planned maintenance of main/auxiliary engines;
- condition monitoring of engine room machinery;
- breakdown maintenance – why did the failure occur?

Electro-Technical Operations

- What activity was being carried out?
- Why was it being carried out?
- What was your involvement?
- Was there additional work carried out above that expected – if so why?

Examples of electro-technical operations include:

- preparing and running diesel or steam generator;
- operating various electrical propulsion systems;
- testing various alarms and trips – why and how often do they need testing?
- making adjustments to various systems – the reasons for adjustments;
- the procedures to be followed with regard to various operational activities;
- hazardous area working – why is it a hazardous area and what precautions need to be taken when working in one;
- calibrating and aligning various equipment – why and how often does this need to be done?

Operational Management

- arranging daily tasks,
- examples of teamwork,
- involvement with shore personnel,
- your involvement with the ship's ISM System.

საქართველოს ეკონომიკისა და მდგრადი განვითარების სამინისტროს საჯარო სამართლის იურიდიული პირის – საზღვაო ტრანსპორტის სააგენტოს დირექტორის 2013 წლის 26 აპრილის ბრძანება №04 - ვებგვერდი, 30.04.2013წ.