

# LIST OF E-LEARNING MODULES

# **22 FEBRUARY 2022**

Total No. of Modules: 199 Estimated Learning Minutes: 4,741

# **MINUTES**

	MINOTES
Bulk Carrier Series	
BC1.0: International Maritime Solid Bulk Cargoes (IMSBC) Code	
BC1.1 International Maritime Solid Bulk Cargoes (IMSBC) Code - Part One	23
SOLAS Convention and Bulk Cargoes IMSBC Code Introduction	
BC1.2 International Maritime Solid Bulk Cargoes (IMSBC) Code - Part Two	23
Properties of Solid Bulk Cargoes Loading and Carriage of Solid Bulk Cargoes Solid Bulk Cargo Hazards and Safety Precautions Maritime Security and the IMSBC Code Declarations for Carriage of Solid Bulk Cargoes	
BC1.3 International Maritime Solid Bulk Cargoes (IMSBC) Code - Part Three	19
Sampling of Solid Bulk Cargoes Vessel Trimming Procedures Tests for Angle of Repose for Solid Bulk Cargoes Solid Bulk Cargoes that may Liquefy	
BC1.4 International Maritime Solid Bulk Cargoes (IMSBC) Code - Part Four	26
Tests for Solid Bulk Cargoes That May Liquefy Solid Bulk Cargoes Presenting a Chemical Hazard Carriage of Solid Bulk Cargoes Designated as Waste	
BC2.0: Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code)	
BC2.1 Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code) - Part One	28

Introduction and Purpose

**Definitions** 

Responsibility of the Ship's Crew / Shipowner

Responsibility of the Terminal



# **MINUTES**

Bulk Carrier Series	
BC2.0: Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU	
Code)	
BC2.2 Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code)	30
- Part Two	
Responsibility of the Terminal and Ship Crew/Shipowner (Interface)	
BC2.3 Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code) - Part Three	27
Ship/Shore Safety Checklist Cargo and Ballast Handling	
BC3.0: International Code for the Safe Carriage of Grain in Bulk	
BC3.1 International Code for the Safe Carriage of Grain in Bulk - Part One	25
Specific Requirements for Ships Carrying Grain in Bulk Part A - Part One	
BC3.2 International Code for the Safe Carriage of Grain in Bulk - Part Two	20
Part A - Part Two Part B	
BC4.0: Code of Safe Practice for Ships Carrying Timber Deck Cargoes, 2011	
BC4.1 The Code of Safe Practice for Ships Carrying Timber Deck Cargoes, 2011 (2011 TDC Code) - Part One	22
Introduction and Definitions Preparations for Loading	
BC4.2 The Code of Safe Practice for Ships Carrying Timber Deck Cargoes, 2011 (2011 TDC Code) - Part Two	33
Stowage of Timber Cargoes	
BC4.3 The Code of Safe Practice for Ships Carrying Timber Deck Cargoes, 2011 (2011 TDC Code) - Part Three	17
Personnel Protection and Safe Working Practices Properties of Timber Cargoes Requirements for Cargo Securing Equipment	
BC4.4 The Code of Safe Practice for Ships Carrying Timber Deck Cargoes, 2011 (2011 TDC Code) - Part Four	17

Lashing and Securing System Design Principles and Formulae



# **MINUTES**

Bulk Carrier Series	
BC5.0: Carriage of Steel Cargoes	
BC5.1 Carriage of Steel Cargoes	49
Loading and Stowing Steel Coils Lashing and Securing Dunnage Do's and Don'ts Cargo Hold Humidity, Sweat, etc.	
BC6.0: Carriage and Care of Bagged Rice Cargoes	
BC6.1 Carriage and Care of Bagged Rice Cargoes	28
Ship Sweat and Cargo Sweat Standard Use of Bamboo Materials for Dunnage Allied Maritime Approach for the Placement of Dunnage and Stowage Do's and Don'ts for Bagged Rice Stowage Cargo Humidity and Ventilation Including Testing Placement of Bagged Rice with Ventilation Channels Timber Dunnage	
Business Law and Commercial Knowledge Series	
BL1.0: Understanding MLC 2006 - Compliance and Enforcement	
BL1.1 Understanding MLC 2006 - MLC Structure and Title 1	16
Articles, Titles and Regulations and Codes  Titles and Regulations, Parts A and B of the Code - Standards and Guidelines  Title 1: Minimum Requirements for Seafarers to Work on a Ship	
BL1.2 Understanding MLC 2006 - Title 2	21
Title 2: Conditions of Employment	
BL1.3 Understanding MLC 2006 - Titles 3 and 4	28
Title 3: Accommodation, Recreational Facilities, Food and Catering Title 4: Health Protection, Medical Care, Welfare and Social Security Protection	
BL1.4 Understanding MLC 2006 - Title 5 and Preparations for Flag State Inspection	24
Title 5: Compliance and Enforcement	

Summary of On-board Preparations for Flag State Inspection



# **MINUTES**

Catering Management Series	
CM1.0: Basic Food Handling Safety	
CM1.1 Galley Operations	17
Regulatory Framework Identification of Food Safety Critical Control Points and Hazards Water	
CM1.2 Food Handling Part A	16
Food Safety Plan	
CM1.3 Food Handling Part B	19
Food Safety Procedure	
Environmental Protection Series	
EP1.0: MARPOL Annex I - Prevention of Pollution by Oil	
EP1.1 About MARPOL	22
IMO History and Purpose Purpose, Structure and Development of MARPOL Implementation and Amendments to MARPOL Fuel Oil Tank and Piping Construction Standards Sludge Tanks IOPP Certificate	
EP1.2 Waste Oil Management - Filters Separators and Monitors	13
Oil Filtration System Oily Water Separators Oil Content Monitor Care and Maintenance of the OWS System	
EP1.3 Waste Oil Management Operations	17
Machinery Space Operations Illegal Operations	
EP1.4 Oil Record Book Part I - Machinery Space Operations (1)	21
Overboard Discharge Keeping Records in the Oil Record Book Part 1, Codes A, B & C Operations	
EP1.5 Oil Record Book Part I - Machinery Space Operations (2)	16
Keeping Records in the Oil Record Book Part 1, Codes D to I Operations	
EP1.6 Oil Record Book Part II - Cargo/Ballast Operations Oil Tankers	15
Keeping Records in the Oil Record Book Part II - Cargo/Ballast Operations - Oil Tankers	

Famous Last Words



# **MINUTES**

	IVIIINOTES
Environmental Protection Series	
EP1.0: MARPOL Annex I - Prevention of Pollution by Oil	
EP1.7 Special Requirements for Tankers - Part One	10
Construction Standards Discharge Ballast or Slop Tank Water	
EP1.8 Special Requirements for Tankers - Part Two	20
Crude Oil Washing Crude Oil Washing Waste Management	
EP1.9 Shipboard Oil Pollution Emergency Plan (SOPEP)	14
Purpose of S.O.P.E.P. What Information Must Be In The Plan? Responding to an Oil Spill Other Records that Support the Ship's Case SOPEP Equipment	
EP1.10 Best Practices for Compliance with MARPOL	23
Port State Control Certificates Equipment and Systems Operations General Check for all Ships	
EP2.0: MARPOL Annex II - Prevention of Pollution by Noxious Liquid Substances	
EP2.1 MARPOL Annex II - Chapters 1 to 4	26
Chapter 1 - General Chapter 2 - Categorisation of Noxious Liquid Substances Chapter 3 - Certification and Surveys Chapter 4 - Design, Construction, Arrangement and Equipment	
EP2.2 MARPOL Annex II - Chapter 5	23
Chapter 5 - Operational Discharges of Residues of Noxious Liquid Substances	
EP2.3 MARPOL Annex II - Chapter 6	12
Chapter 6 - Measures of Control by Port States	
EP2.4 MARPOL Annex II - Chapters 7 and 8	23
Chapter 7 - Prevention of Pollution Arising from an Incident Involving Noxious Liquid Substances	

Chapter 8 - Reception Facilities and Cargo Unloading Terminal Arrangements



# **MINUTES**

	MINOTES
Environmental Protection Series	
EP3.0: MARPOL Annex III - Prevention of Pollution by Harmful Substances Carried by	
Sea in Packaged Form	
EP3.1 MARPOL Annex III - Prevention of Pollution by Harmful Substances Carried by	22
Sea in Packaged Form	
MARPOL Annex III Regulations	
Future Amendments	
EP4.0: MARPOL Annex IV - Prevention of Pollution by Sewage from Ships	
EP4.1 MARPOL Annex IV - Prevention of Pollution by Sewage from Ships	18
Sewage Treatment Plant	
EP5.0: MARPOL Annex V - Prevention of Pollution by Garbage from Ships	
EP5.1 Garbage Sources and Disposal	20
Reducing The Waste At Source	
Types of Garbage	
Summary of Garbage Disposal to Sea Allowed by MARPOL Annex V	0.0
EP5.2 Garbage Management Plan	28
Garbage Management Plan	
The Garbage Record Book	
EP6.0: MARPOL Annex VI - Prevention of Air Pollution from Ships	20
EP6.1 Regulations Overview	30
MARPOL Annex VI Chapter 1 - General	
Chapter 2 - Survey, Certification and Means of Control Chapter 3 - Requirements for Control of Emissions from Ships	
Chapter 4 - Regulations on Energy Efficiency of Ships	
Chapter 5 - Verification of Compliance with the Provisions of this Annex	
EP6.2 Regulation 12 - Ozone Depleting Substances	18
Atmospheric Ozone and the Ozone Layer	
MARPOL Annex VI and Ozone Depleting Substances	
EP6.3 Regulation 13 - Nitrogen Oxides (NOx)	33
NOx and its Environmental Effects	

MARPOL Annex VI and Nitrogen Oxides

Controlling Production of NOx in Diesel Engines and Boilers



#### **MINUTES**

	WIIINOTES
Environmental Protection Series	
EP6.0: MARPOL Annex VI - Prevention of Air Pollution from Ships	
EP6.4 Regulation 14 - Sulphur Oxides (Sox)	30
Production of SOx on Ships	
MARPOL Annex VI and Sulphur Oxides	
Other Emission Control Regulations	
Fuel Change Over Manual	
Alternative Methods of Controlling SOx Production	
EP6.5 Regulation 15 - Volatile Organic Compounds (VOCs)	31
Volatile Organic Compounds (VOCs)	
MARPOL Annex VI and Volatile Organic Compounds	
EP6.6 Regulation 16 - Shipboard Incineration	32
Shipboard Incineration and Environmental and Health Issues	
MARPOL Annex VI and Shipboard Incineration	
EP6.7 Regulation 18 - Fuel Availability	20
MARPOL Annex VI, Availability and Quality of Fuel Oil Supplies	
Bunkering to Ensure Compliance	
EP6.8 Regulation 19-23 Shipboard Energy and Efficiency	30
Shipboard Energy Efficiency and Emission Control	
MARPOL Annex VI, Chapter 4 Shipboard Energy Efficiency	
Shipboard Energy Efficiency	
EP7.0: Small Vessel General Permit	
EP7.1 Introduction, Coverage and Discharge Categories	24
Small Vessel General Permit (sVGP) Coverage	
Discharge Categories, Effluent Limits and Management Practices Part 1	
EP7.2 Discharge Categories, Reporting, Inspections, Completion of PARI Form and	22
Additional Requirements	
Discharge Categories Effluent Limits and Management Practices Part 2	

Discharge Categories, Effluent Limits and Management Practices Part 2

Non-compliance and Reporting to the EPA

Inspections, Monitoring and Corrective Actions

**States Additional Requirements** 

Completion of 'Permit Authorization and Record of Inspection (PARI)' form

Summary and Further Information



# **MINUTES**

Environmental Protection Series	
EP8.0: Vessel General Permit	
EP8.1 Introduction, Coverage and Discharge Categories	34
Chapter 1 - Introduction	
Chapter 2 - VGP Coverage	
Chapter 3 - Discharge Categories and Related Requirements, Part 1	
EP8.2 Discharge Categories Corrective Actions and Inspections	20
Chapter 3 - Discharge Categories and Related Requirements, Part 2	
Chapter 4 - Corrective Actions and Non-compliance Reporting	
Chapter 5 - Inspections Monitoring and Reporting to the EPA	
EP8.3 Record Keeping, Filing, Training and Additional Requirements	29
Chapter 6 - Recordkeeping	
Chapter 7 - States Additional Requirements Chapter 8 - Training Requirements	
Chapter 9 - Filing of Vessel General Permit	
Environmental Seamanship Series	
ES1.0: Cold Weather Preparations	
ES1.1 Cold Weather Preparations - The Ship	16
Preparing the Ship for Cold Weather	
ES1.2 Cold Weather Preparations - The Crew	21
Preparing the Crew for Cold Weather	
Safety Equipment and Emergency Response in Cold Weather	
Fire Safety Series	
FS1.0: Fire Safety	
FS1.1 Elements of Fire - Conditions, Development and Extinguishing	30
Conditions of Fire	
Fire Development	
Fire Spread	
Extinguishing Fire and Extinguishing Agents	
FS1.2 Elements of Fire - Classification of Fires	26
Classification of Fires	
FS1.3 Fire Prevention	30
131.3 File Frevention	

An ISO 9001:2015 certified company

Fire Hazards and Safe Practices



# **MINUTES**

	WIINGILS
Fire Safety Series	
FS1.0: Fire Safety	
FS1.4 Fixed Installations - Detectors and Water Systems	26
Fire and Gas Detectors	
Water Systems	
FS1.5 Fixed Installations - Foam, CO2 and Dry Chemical Systems	22
Foam Systems	
CO2 Systems	
Dry Chemical Systems	
FS1.6 Portable Equipment	15
Portable Extinguishers	
Semi-Portable Extinguishers	
Fire Blanket	
FS1.7 Personal Protection	15
Fireman's Outfit	
Breathing Apparatus	
Escape Sets	
FS1.8 Shipboard Fire Fighting Organisation	15
Fire Control Plan	
Muster List	
Fire Fighting Organisation	
Communications	
FS1.9 Fire Fighting Principles	20
First Actions	
Fire Fighting Techniques	
FS1.10 Search and Rescue	24

Search and Rescue



Fire Safety Series	
FS2.0: Fire Extinguisher Maintenance	
FS2.1 Maintenance	21
Types of Maintenance	
Planned Maintenance System	
Monthly Inspection	
Defects	
Planned Maintenance System	
Overhaul and Annual Maintenance	
Non-rechargeable Extinguishers	
Corrective Maintenance	
Troubleshooting a Defective Extinguisher	
FS2.2 Recharge Procedures - Stored Pressure Type	21
Types of Extinguisher	
Stored Pressure Water or Foam Extinguishers	
Stored Pressure Dry Chemical Extinguishers	
CO2 Extinguishers	
FS2.3 Recharge Procedures - Cartridge Type	27
Cartridge Type – Water, Foam or Dry Powder	
Cartridge Type Maintenance	
Inspection Report Card	
Criteria for Completing the Monthly Inspection Card	
Routine Inspection of Fire Extinguisher Form	
First Aid Series	
FA1.0: Elementary First Aid for Seafarers	
FA1.1 General Principles of First Aid - Part One	15
Immediate Actions	
FA1.2 General Principles of First Aid - Part Two	20
Secondary Actions	
Anatomy and Physiology	
FA1.3 Unconscious Casualty	15
Levels of Consciousness	
Dangers	
General Treatment	
Positioning of Casualty	



	WIIIVOILS
First Aid Series	
FA1.0: Elementary First Aid for Seafarers	
FA1.4 Resuscitation	35
Methods of Artificial Ventilation CPR AED Usage Choking	
FA1.5 Wounds and Bleeding - Part One, Wound Classification and Types of Bleeding	15
Classification of Wounds Types of Bleeding Nose Bleeds	
FA1.6 Wounds and Bleeding - Part Two, Dressing and Bandages	20
Dressings and Bandages	
FA1.7 Burns and Scalds	18
Causes and Assessment Treatment	
FA1.8 Shock	10
Causes and Effects Signs and Symptoms Treatment	
FA1.9 Body Mechanics and Casualty Transfers - Part One	33
General Considerations  Methods of Transfer - Part One	
FA1.10 Body Mechanics and Casualty Transfers - Part Two	28
Methods of Transfer - Part Two Stretchers and Spine Boards	



	MINUTES
Incident Investigation Series	
II1.0: Accident Investigation	
II1.1 Interpret Incident Reporting and Investigation Policy, Procedures and Guidelines	16
Incident Reporting	
Recordable Accident or Illness Definitions	
Company Incident Categories	
Incident Statistic Recording	
Recordable vs Reportable	
II1.2 The First Report	34
References	
First Report	
II1.3 Follow up Investigation and Reporting	16
References	
Investigation Sequence	
Lifting, Hoisting, and Handling Series	
LH1.0: Lifting and Hoisting – The Basics	
LH1.1 Risk Assessment	20
The Levels of Risk Assessment	
Pre-operation Risk Assessment Process	
Lift Plan	
Pre-operational Checklists and Functional Checks	
LH1.2 Lift Categorisation	20
The Categorisation of Lifts and Hoists	
LH1.3 Ascertaining the Weight of a Load and Tension in Lifting Equipment	20
Calculating the Weight of a Load	
Tension in Lifting Equipment	



# **MINUTES**

	MINUTES
Lifting, Hoisting, and Handling Series	
LH2.0: Lifting and Hoisting Operations	
LH2.1 Forklift Truck Operations	30
Preparation of Forklift Truck for Operations Safe Operational Procedures	
LH2.2 Offshore Crane Operation	33
Preparation of Offshore Cranes Before Operation Offshore Crane Operations	
LH2.3 Load Handling Operations in Marine Environments	32
Preparation for Handling Loads Rigging Loads Securely Safe Load Handling Handling Cargo From and To Supply Vessels	
LH2.4 Lifting Over Energised Production Equipment	24
Preparations for Lifting Over Energized Production Equipment Safe Operational Procedures for Lifting Over Energized Production Equipment Guidance Notes	
LH2.5 Hands-free Lifting Procedures	15
Preparations for Hands-Free Lifting Safe Hands-Free Lifting Operations	
LH2.6 Personnel Transfer and Work Basket Operations	32
Personnel Transfers Preparations for Personnel Transfer by Basket 10 Rules for Personnel Basket Transfers Personnel Transfer Capsules Prepare for Use of Personnel Work Baskets	
LH2.7 Personnel and Utility Winch Operations	32
Preparation and Use of Personnel and Material Hoists for Operation Preparation and Use of Tugger (Cargo) Winches Operating a Tugger or Cargo Winch	
LH2.8 Lifting Equipment Certification and Inspection	19
The Scheme of Certified Inspection of Lifting Equipment Lifting Equipment Pre-use Inspection Procedures	

Lifting Equipment Inspection, Testing and Certification Procedures

Lifting Equipment Standards and Control Procedures



	MINOTES
Lifting, Hoisting, and Handling Series	
LH2.0: Lifting and Hoisting Operations	
LH2.9 Operation of Onshore Cranes	20
The Preparation of Crane and Site for Onshore Crane Operation Preparation of Onshore Cranes for Operation Onshore Crane Operations	
LH2.10 Handling Cargo From and To Supply Vessels	20
Handling Cargo From and To Supply Vessels	
LH2.11 Cargo Carrying Units and Flexible Intermediate Bulk Containers	20
Cargo Carrying Units Flexible Intermediate Bulk Containers	
LH2.12 Overhead Traveling and Gantry Crane Operations	20
Preparation of Overhead Cranes for Operation Overhead Travelling and Gantry Crane Operations Shutting Down Overhead Travelling and Gantry Cranes	
Marine Engineering Series	
ME1.0: Operation of Engine Room Bilge Water Separator	
ME1.1 Bilge Water Separator - Regulation and Penalties	20
Applicable Convention Chapters / Sections Penalties for Non-compliance, National Enacting Legislation	
ME1.2 Bilge Water Separator - Types of Separator	15
15ppm Oily Water Separator Types of Separator General E.H. and Safety Requirements	
ME1.3 Bilge Water Separator - Separator Operation and Types of Oil Content Monitor	20
Operation of Oily Water Separator Types of Oil Content Monitor	



### **MINUTES**

	MINUTES
Marine Engineering Series	
ME2.0: Marine Fuel Handling	
ME2.1 Marine Fuel Handling - General Overview	17
Overview	
ME2.2 Marine Fuel Handling - Storage and Heating	15
Fuel Storage and Heating	
ME2.3 Marine Fuel Handling - Low Sulphur Overview of Requirements	14
Low Sulphur Overview of Requirements General E.H. and Safety Requirements Summary	
ME3.0: Control of M.E. and Diesel Auxiliary Fuel Consumption	
ME3.1 Fuel Combustion Efficiency - Part One	20
MARPOL Annex VI System Main Components Combustion Process	
ME3.2 Fuel Combustion Efficiency - Part Two	15
Measuring Power in Diesel Engines Fuel Injector Faults Control of NOx Emissions General E.H. and Safety Summary	
ME4.0: Automation and Viscosity Control	
ME4.1 Fuel Oil Service and Viscosity Control Systems	22
Applicable Regulations Fuel Oil Service System Fuel Viscosity	
ME4.2 Tuning Three Term Controllers	12
Tuning Three Term Controllers	

Safety Summary



# **MINUTES**

	IVIIINOTES
Marine Engineering Series	
ME5.0: Operation of Generators	
ME5.1 Operation of Generators - System Overview Part A	16
System Overview A	
ME5.2 Operation of Generators - System Overview Part B	18
System Overview B	
ME5.3 Operation of Generators - Distribution System and Switchboards	12
Distribution System and Switchboards Safety and EH Requirements Summary	
ME6.0: Low Sulphur Operation	
ME6.1 Low Sulphur Operation	30
System Overview General E.H. and Safety Summary	
ME7.0: Bunkering Operations	
ME7.1 Bunkering Operations	64
Types of Fuel - Low Sulphur Fuels Preparation for Bunkering Operations Fuel Oil Sampling Arrangements and Procedures Bunkering Operations – Procedures Completion of Operations / Awareness of Malpractice / General Summary of Guidance	
ME8.0: Electrical Safety	
ME8.1 Electrical Safety	20

**Electrical Isolation** 



Navigation Series	
N1.0: Regulations for Preventing Collisions at Sea	
N1.1 Part A and B Rules	115
Outcomes and Objectives Introduction Part A: General Section I. Conduct of Vessels in any Condition of Visibility Section II. Conduct of Vessels in Sight of One Another Section III. Conduct of Vessels in Restricted Visibility	
Personal Safety and Social Responsibility Series	
PSSR1.0: Personal Safety and Social Responsibilities	0.0
PSSR1.1 Commercial Shipping Part One	26
Commercial Shipping The Ships - Part 1	
PSSR1.2 Commercial Shipping Part Two	20
The Ships - Part 2	20
The Pollution Problem	
PSSR1.3 Shipboard Emergencies Part One	20
Emergencies Stability and Seaworthiness Emergency Response Planning	
PSSR1.4 Shipboard Emergencies Part Two	26
Contingency Plans Shipboard Emergency Response	
PSSR1.5 Safe Working Practices Part One	16
Joining the Ship Manual Handling Safety Issues	
PSSR1.6 Safe Working Practices Part Two	20
Personal Protective Equipment	
PSSR1.7 Safe Working Practices Part Three	17
Enclosed Spaces Permits to Work	
PSSR1.8 Deck Operations Part One	14
Moorings - basic overview  Anchoring - basic overview Working with Power Tools	
PSSR1.9 Deck Operations Part Two	15
Lifting, Rigging and Slinging - basic principles	



# **MINUTES**

Personal Safety and Social Responsibility Series	
PSSR1.0: Personal Safety and Social Responsibilities	
PSSR1.10 Contribute to Effective Human Relationships On Board Ships	16
Command and Control	
Understanding Orders	
Social Responsibility	
Good Working Relationships	
A Contract for Work	
Adherence to International Maritime Rules and Conventions	
Drugs and Alcohol	
Safe Working Practices Onboard Ships	
SWP1.0: Workload Management Onboard Ships	
SWP1.1 Workload Management on Board Ships - Part One	20
International Treaties and Codes as they relate to Task and Workload	
Management	
The Application of Leadership and Team Working Skills in Resource Management	
- Part 1	
SWP1.2 Workload Management on Board Ships - Part Two	20
Application of Leadership and Team Working Skills in Resource Management -	
Part 2	
SWP2.0: Risk Management	
SWP2.1 Hazard Identification	25
Types and location of Hazards	
SWP2.2 Assessing Risks in the workplace	35
Assessing Risk	
Hierarchy of Controls to Mitigate the Risk	
Residual Risk	
SWP2.3 Case Studies	40

Case Studies - Description and Analysis



# **MINUTES**

Sea Survival Series	
SS1.0: Personal Sea Survival	
SS1.1 SHIPBOARD Familiarization and Safety	15
Shipboard Familiarization	
Muster List and Alarms	
Safety Equipment Plan	
SOLAS Training Manual	
IMO Safety Symbols	
SS1.2 Personal Life Saving Appliances	20
Lifebuoys	
Lifejackets	
Immersion Suit and Anti-Exposure Suits (AES)	
Thermal Protective Aid	
SS1.3 Survival Craft and Rescue Boats	26
Lifeboats	
Liferafts	
Rescue Boats	
Launching and Embarkation Appliances	27
SS1.4 Emergency Situations and Evacuation	27
Emergency Preparedness	
Types of Emergencies  Evacuation	
	19
SS1.5 Survival - Part One, Dangers to Survivors	19
Dangers to Survivors	
SS1.6 Survival - Part Two, Survival Principles and Actions	21
Survival Principles	
Positive Survival Elements	
	17
Survival Actions  SS1.7 Emergency Communication  EPIRB  SART  VHF Radio  Life Saving Signals	17

**Pyrotechnics** 



# **MINUTES**

	WIIIVOTES
Sea Survival Series	
SS1.0: Personal Sea Survival	
SS1.8 Helicopter Assistance	14
Helicopter Assistance Helicopter Communications Preparations for Helicopter Arrival Helicopter Winching	
SS2.0: Fassmer Freefall Lifeboat	
SS2.1 The Release Mechanism, Launching and Securing at Sea	20
The Release Mechanism Securing at Sea The Launch Procedure	
SS2.2 Recovery and Survival Suits	12
Recovery Immersion Suits	
SS3.0: Schat Harding Freefall Lifeboat	
SS3.1 Description, Securing Arrangements and Immersion Suits	25
General Description Securing Arrangements Immersion Suits	
SS3.2 Launching and Recovery	25
Launching Procedures After the Launch Recovery	
SS4.0: NORSAFE Freefall Lifeboat	
SS4.1 Description, Securing Arrangements and Immersion Suits	25
General Description The Lifeboat Securing Arrangements Immersion Suits	
SS4.2 Launching and Recovery	30
Launching Procedures	

After the Launch

Recovery After Launch



# **MINUTES**

Sea Survival Series	
SS5.0: Twin Fall Lifeboat	
SS5.1 Twin Fall Lifeboat (TEMPSC)	40
Twin Fall Launching Appliances Launching and Recovery Procedures for Drills Launching Procedures - Preparation for Emergency Evacuation Launching Procedures for Emergency Evacuation - From Stowed Position Launching Procedures for Emergency Evacuation - From Embarkation Deck Launching into a Burning Sea Tricing Pennants and Bowsing Tackle Drills and Training Fall Preventer Devices	
Ship Security Series	
ShS1.0: Ship Security Officer	
ShS1.1 Maritime Security Overview	12
Perspective Legislation Legal Implications Sensitive Information Definitions	
ShS1.2 Security Assessment and Ship Security Plan	15
Risk Assessment On-Scene Security Survey Documentation Purpose Contents Confidentiality Implementation Maintenance and Amendment	
ShS1.3 Implementation of the Security Plan	20
Security Levels Ship/Port Interface	

**Declaration of Security** 

Implementation



# **MINUTES**

Ship Security Series	
ShS1.0: Ship Security Officer	
ShS1.4 Threats, Preparedness and Administration	18
Security Equipment and Systems Security Equipment Limitations and Maintenance Dangerous Items Physical Inspections Implementing Searches Personal Profiling Evasive Techniques Crowd Management Contingency Planning Training Requirements / Security Drills and Exercises Documentation and Records Reporting Security Incidents Monitoring and Control Security Audits and Inspections / Reporting Non-Conformities	
ShS2.0: Anti Piracy	
ShS2.1 Anti Piracy - Part One	29
What is Piracy Vessel Physical Preparations for Transit Conduct During Transit	
ShS2.2 Anti Piracy Part Two	21
Actions on Encountering Pirates Communications and Reporting	
Tank Coating Series	
TC1.0: Ballast Tank Coating	
TC1.1 Understanding Ballast Tanks and Coatings	19
Ballast Tank Concerns Coating Concerns Coating Conditions Classification Society Requirements	
TC1.2 Inspecting and Monitoring Critical Surfaces - Part One	17
Areas Under Consideration  Types of Protective Coating Failures	

**Corrosion Concerns** 



# **MINUTES**

Tank Coating Series	
TC1.0: Ballast Tank Coating	
TC1.3 Inspecting and Monitoring Critical Surfaces - Part Two	14
Entering Tanks	
Assessing Coating Conditions	
Reporting the Coating Conditions for Areas Under Consideration	
Coating Maintenance Considerations	
Inspection and Maintenance Requirements	
Recommended Maintenance	
TC1.4 Preparing Steel Surfaces for Protective Coatings	15
Design Considerations	
Surface Preparation Methods	
TC1.5 Applying Coatings to Required Surfaces	21
Important Considerations Prior to Applying the Coatings	
Protective Coating Systems	
TC2.0: Vessel Structure and Condition	
TC2.1 Vessel Structure and Condition	27
Ship Design, Survey and Certification	
Nomenclature and Construction of Principal Structural Members; Names of Ship	
Parts, etc.	
Structural Design Principles: Longitudinal and Transverse Combinations of	
Structural Members	
Internal and External Forces and Critical Areas	
Critical Areas and Inspections	
Tanker Series	
LNG1.0: Transportation of LNG by Sea	
LNG1.1 LNG Operations - Physical Properties	25

Physical Properties of LNG, Storage and Transportation

Change of State

Vapour Pressure

Temperature, Heat and Change of State

Origins of LNG

Liquefaction of LNG



# **MINUTES**

	WIIITOTES
Tanker Series	
LNG1.0: Transportation of LNG by Sea	
LNG1.2 Gas Tankers	20
Liquefied Gas Carriers	
LNG Carriers	
The Ballast Voyage	
The Loaded Voyage	
LNG1.3 Basic LNG Safety	26
Risks Associated with LNG Transportation	
LNG Hazards - Spills	
LNG Hazards - Fire	
LNG Safety Systems	
LNG1.4 Safety - Action in the event of fire or breach	22
LNG Flammability	
Extinguishing an LNG Fire	
LNG - Tank Breach	
LNG1.5 Cargo Handling Systems and Operations - Part One, Cargo Handling Systems	16
Cargo Handling Systems - Shipboard	
Cargo Handling Systems - Shoreside	22
LNG1.6 Cargo Handling Systems and Operations - Part Two, Tank preparation	22
Tank Preparation	
LNG1.7 Cargo Handling Systems and Operations - Part Three, Loading and Discharging	23
Operations	
Ship / Shore Interface	
Loading/Discharging Cargo	24
LNG1.8 Custody Transfer Measurement - Part One	21
Custody Transfer Principles	
Shipboard Cargo Measurement Sampling	
	25
LNG1.9 Custody Transfer Measurement - Part Two	25
Density, Molar Mass and Molar Volume Interpolation	
LNG1.10 Custody Transfer Measurement - Part Three	24
·	24
Heating Value and Energy Transferred	

Atoms and Moles



# **MINUTES**

Tanker Series	
T1.0 Chemical Cargo Operations	
T1.1 Chemical Tanker Design, Systems and Equipment	123
General Arrangement and Construction	
Pumping Arrangement and Equipment	
Pipeline and Drainage Systems	
Cargo Manifold	
Cargo Heating and Cooling Systems	
Temperature Control and Monitoring	
Tank Cleaning Systems	
Cargo Tank Environmental Control Systems	
Cargo Area Venting and Accommodation Ventilation	
Fire Fighting Systems	
Gauging Control Systems and Alarms	
Materials and Coatings for Tanks and Pipelines	
T1.2 Pump Theory and Characteristics	46
Cargo Pumps	
Framo Cargo Pumping System	
T1.3 Tanker Safety Culture and Implementation of Safety Management System (SMS)	32
Tanker Safety Culture and Implementation of Safety Management System	
Risk Management	
Hazard Analysis	
Residual Risk Management	
T1.4 Emergency Shutdown	6
Emergency Shutdown	
T1.5 Cargo Calculations	32
Custody Transfer	
Cargo Documentation	
Cargo Samples	
Cargo Measurement	
T1.6 Trim and Stability	6
Effect of Bulk Liquid Cargoes on Trim and Stability and Structural Integrity	
T1.7 Chemical Cargo Related Operations	44
Preparations for Loading	

**Loading Operations** 



Tanker Series	
T1.0 Chemical Cargo Operations	
T1.8 Tank Cleaning	102
MARPOL Requirements Tank Cleaning Guide Tank Cleaning Equipment Tank Cleaning Procedures Hazards of Tank Cleaning Tank Testing and Acceptance	
T1.9 Ship/Shore Interface Checklist	91
Ship/Shore Interface Duties and responsibilities Information Exchange International Ship/Shore Safety Checklist Completing The International Ship/Shore Safety Checklist. Part 'A' – Bulk Liquid General – Physical Checks Completing The International Ship/Shore Safety Checklist. Part 'B' – Bulk Liquid General – Verbal Verification Completing The International Ship/Shore Safety Checklist. Part 'C' – Bulk Liquid General – Verbal Verification Completing The International Ship/Shore Safety Checklist. Part 'D' – Bulk Liquefied Gases – Verbal Verification	
T1.10 Calibration and Use of Monitoring and Gas Detection System	10
Gas Detection	
T1.11 Manage and Supervise Personnel with Cargo Related Responsibilities	7
Manage and supervise personnel with cargo related responsibilities	
T1.12 Chemical and Physical Properties of Cargoes	66
Familiarity with physical and chemical properties of chemical cargoes Stability and instability Thermodynamics in chemical reaction Polymerization	



#### **MINUTES**

# **Tanker Series T1.0 Chemical Cargo Operations** T1.13 Material Safety Data Sheets Material Safety Data Sheets (MSDS) T1.14 Hazards Associated with Chemical Tanker Operations 30 Hazards Associated with Chemical Tanker Operations Reactivity and Polymerization **High Density Cargoes** T1.15 Occupational Health and Safety Precautions 24 Safe working practices, and personal shipboard safety relevant to chemical tankers Hazard awareness Personal protective equipment T1.16 Chemical Tanker Emergency Response Plans 29 Shipboard Marine Pollution Emergency Plan Purpose and design of a Shipboard Marine Pollution Emergency Plan The procedure to report incidents Steps to control the discharge **Prioritizing actions** Coordinating national and local activity Non-mandatory information of the SMPEP Jettisoning of cargo T1.17 Take Precautions to Prevent Pollution of the Environment 76 Noxious liquid substances and hazard categorization Chapter 3 Certification and surveys Chapter 4 Design, construction, arrangement and equipment Chapter 5 Operational discharges of residues of noxious liquid substances Chapter 6 Measures of control by Port States Chapter 7 Prevention of pollution arising from an incident involving noxious liquid substances Chapter 8 Reception facilities T1.18 MARPOL Annex II 16

**MARPOL** 

MARPOL Annex II

Amendments to MARPOL Annex II and the IBC Code



# **MINUTES**

	MINUTES
Tanker Series	
T2.0: Tanker Safety - Gas Measurement	
T2.1 Gas Measurement - Part One	20
Measuring Instruments and Operating Principles	
T2.2 Gas Measurement - Part Two	20
Measuring Instruments and Operating Principles	
T3.0: Ship to Ship Transfer - Tankers	
T3.1 Introduction to STS Cargo Transfer Operations	16
General Overview of STS Transfer Operations Responsibilities and Control of Operations – Person in Overall Advisory Control (POAC) Responsible Person in charge of Cargo Transfer Operations Training and Crew Competence	
T3.2 Conditions and Requirements	15
Ship to Ship Compatibility Compatibility Assessment Additional Considerations for Vessels of Similar Lengths Selecting a Safe STS Transfer Area Local Authority Notification and Approval Environment – MARPOL Chapter 8 Regulation 41 Sloshing Due Diligence Screening	
T3.3 Safety	11

Risk assessment

Contingency Plans and Emergency Response

Personal Protective Equipment and Life Saving Appliances

Prevention of Fatigue

Safety Checklists

Compliance with ISGOTT Guidelines

Physical and Chemical Properties of Cargo

Gas Dangerous Zones

**Helicopter Operations** 



	MINUTES
Tanker Series	
T3.0: Ship to Ship Transfer - Tankers	
T3.4 Communications	8
Language Agreed to be used for Operations Establish Communications Early Means of Communications Ship To Ship Information Exchange Ship To Support Vessel Communications Navigational Warnings	
T3.5 Operational Preparations before Manoeuvring	5
Joint Plan of Operation (JPO) Preparation of Ships and Crew Readiness of Support Vessels	
T3.6 Equipment of Particular Importance to STS Operations	20
Fenders Fender Considerations Lines Chocks Mooring Winches Miscellaneous Procedures and Equipment to Facilitate Mooring Operations Cargo Hoses Electrical Properties Criteria of Transfer Hoses	
Hose Limitations, Flow Velocities, Pressure and Handling	

Hose Length Connection of Hoses

Quick Connect/Disconnect (QC/QD) Couplings

**Deck Lighting General Considerations** 

**Ancillary Equipment** 



#### **MINUTES**

# **Tanker Series** T3.0: Ship to Ship Transfer - Tankers T3.7 Manoeuvring and Mooring 16 Basic Principles and Guidance for Manoeuvring Two Ships Alongside Each Other at Sea **General Manoeuvring Principles Passing Mooring Lines Underway During Transfer** Two Ships Alongside Manoeuvring to Anchor Vessel Manoeuvring Alongside with One Vessel at Anchor Vessel Manoeuvring Alongside to a Vessel in Port at Terminal **Mooring Plans and Practices** T3.8 Cargo Transfer Procedures Between Ships 18 Parties Responsible for Cargo Transfer Operations on each Ship Cargo Loading and Discharging Plan STS Cargo Transfer Plan **Connecting Cargo Hoses Cargo Transfer Operations** Vapour Balancing General Considerations and Practices Emergency Shut Down (ESD) General Considerations and Practices

Unmooring with One Ship at Anchor

T3.9 Unmooring

Unmooring from a Ship alongside a Terminal



#### **MINUTES**

### **Case Study Series**

A series of case studies based on actual incidents. Each case study is comprised of a reenactment followed by an analysis of what went wrong, with guidance on best practice.

### CS1.0: Stranger on the Bridge

### CS1.1 Quatsino Sound

This case study, based on a real incident, brings the viewer into the accident investigation room and then onto the bridge as the young inexperienced Master, under pressure from an overbearing, senior pilot, agrees to leave port taking a route he had not previously planned to take. The Pilot wanted to save time for his own reasons, but as will be seen, the outcome not only caused delay, but also damage to both ship and the careers of those responsible.

CS1.2 The Turn

This case study is based on a real incident involving a ship approaching a container port in the U.K. with an experienced pilot "going it alone" conning the vessel in a narrow channel. The ship ran aground as the Master and other members of the Bridge Team stood back and watched it happen.

CS1.3 Contact

This case study is developed around the causal factors that have been identified in accidents involving two ships in the approaches to a port. It highlights the importance of communication both on the bridge of each ship and between ships, as well as the dangers related to pilots agreeing to collision avoidance manoeuvres with another vessel in a language not understood by the ship's Bridge Team.

### **CS2.0: Hazards of Enclosed Space Entry**

### CS2.1 Case of the Silent Assassin

25

This Case Study is based on a real event involving entry into a cargo tank in a chemical tanker. It covers the hazards, and dangers of taking short cuts, emphasizing the need to follow proper enclosed space entry procedures at all times. The limitation of filter masks in oxygen deficient atmospheres is also featured.

### CS2.2 Case of the Invisible Assassin

27

This Case Study is based on a real event involving entry into the access well of a hold carrying coal, by cargo inspectors. The well was not considered to be an enclosed space due to its small size, and so no precautions were taken or procedures followed, with fatal consequences.



# MODULES CURRENTLY UNDER DEVELOPMENT

# **Environmental, Health and Safety**

#### **EHS1.0: Permit to Work System**

#### EHS1.1 Definitions and Accountabilities

Purpose and Scope

Accountabilities

**Training and Competence** 

#### EHS1.2 Permit to Work

**Learning Outcomes** 

**Overall System Description** 

**Hot Work Permit** 

**Cold Work Permit** 

**Confined Space Entry Certificate** 

**Energy Isolation** 

Inhibits/Overrides

Subsea Operations Permit

#### EHS1.3 Tool Box Talks

# **EHS2.0 The International Safety Management Code**

#### Part A

### **EHS3.0 Near Misses**

What are "unsafe conditions", "unsafe acts" and "near misses".

**Near Miss Case Studies** 

### **EHS4.0 Pilot Ladders**

Construction and maintenance of pilot ladders and equipment

Safe rigging and use of Pilot Ladders

**EHS5.0 Behavioural Safety** 

**EHS6.0** Working at Height

**EHS7.0 Manual Handling and Ergonomics** 

**EHS8.0 Housekeeping - Slips Trips and Falls** 

**EHS9.0 Heat Stress** 

**EHS10.0 Hands and Fingers Safety** 



# **Marine Engineering Series**

### **EH8.0 Exhaust Gas Scrubbers**

Open Loop systems Hybrid Systems Closed Loop Systems

# **Navigation Series**

# N2.0 Navigating In Ice

Ice -classed ships

Polar Code

Practical matters from experience

# **Business Law and Commercial Knowledge Series**

# **BL2.0 SIRE and TMSA**

Understanding SIRE Understanding TMSA