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**REPUBLIC OF THE PHILIPPINES**

**DEPARTMENT OF TRANSPORTATION**

**MARITIME INDUSTRY AUTHORITY**

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| **INVENTORY OF TEACHING AIDS AND REFERENCES** |

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| **Training Course:** | Basic Training for Liquefied Gas Tanker Cargo Operations |
| **Name of Maritime Training Institution:** |  |

| *Note: Substitute textbooks and videos can be used provided they contain the same content of the required.* | **Self-Assessment** | **Tabletop Evaluation** | **Inspection** | **Remarks** |
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| **To be accomplished by applicant MTI** | **To be accomplished by designated Tabletop Evaluator** | **To be accomplished by designated Evaluation and Inspection Team (EIT)** |
| **Items** | **Hardcopy** | **Electronic Copy** | **Complied** | **Not Complied** | **Complied** | **Not Complied** |  |
| **Teaching Aids (A):** |
| 1. Visual Presentations
 |  |  |  |  |  |  |  |
| 1. Training Videos about the following:
* An Introduction to Liquefied Gas Carriers
* Hazards and hazards control associated with liquefied gas tanker operations
* Safety in a Liquefied Gas Carriers
* Safe Cargo Operations in Liquefied Gas Carriers
* Cargo firefighting in Liquefied Gas Carriers
* Enclosed space entry
* Emergencies at sea
* Safe working practices

*Note: Other titles of video materials may be used provided it has similar content* |  |  |  |  |  |  |  |
| 1. Pictures, Charts, Posters and Diagrams
* Cargo Piping Diagram
* Chemical Properties of Gas Manual or Chart
* Thermodynamics of Gas Cargoes Diagram
* IMO Chart and Symbols Poster
* Cargo Compatibility Chart
* Flammable Range Diagram
* LPG Safety Posters
* Carcinogenic Cargoes
* Self-reactive / Corrosive Cargoes
* Electro Static Cargoes
 |  |  |  |  |  |  |  |
| 1. Manual/s
* Gas measuring instrument manufacturer`s manual
* Safety equipment and protective devices manufacturer`s manual
* Procedure and Arrangement Manual
* Shipboard Marine Pollution Emergency Plan (SMPEP) Manual
* Shipboard Oil Pollution Emergency Plan (SOPEP) Manual
* Safety Management System (SMS)
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| 1. Material Safety Data Sheet (MSDS) / Safety Data Sheet (SDS) of Liquefied Gas Cargoes and cyanide antidote kit
 |  |  |  |  |  |  |  |
| 1. Sample emergency / contingency plan and muster list
 |  |  |  |  |  |  |  |
| 1. Ship/Shore Safety Checklist
 |  |  |  |  |  |  |  |
| 1. Exercise Sheet
2. Use SDS to identify the hazard control measure in a given cargo operation
3. Use safety equipment and protective devices in accordance with manufacturer’s manual
4. Use portable and personal multi-gas detectors
5. Carry out the preparations and actions to be taken during loading, unloading and care in transit of cargo
6. Carry out tank cleaning, purging, gas-freeing and inerting
7. Carry out fire-fighting operations:
* extinguish gas fire using a fixed fire-fighting foam system
* extinguish gas fire using a portable fire-fighting foam system
* extinguish gas fire using a fixed dry chemical system
 |  |  |  |  |  |  |  |
| **IMO References (R):***MTIs may use additional references as deemed necessary to meet the intended learning outcomes of this training course.* |
| 1. International Maritime Organization. 2017. *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended*. (latest edition)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2022. *International Convention for the Prevention of Pollution from Ships, (MARPOL)* (latest edition)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2020. *International Convention for the Safety of Life at Sea (SOLAS)*, (latest edition)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2016. *International Code for the Construction and Equipment of Ships Carrying Liquefied gases in Bulk (IGC Code)*, (latest edition)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2020. *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemical in Bulk (IBC Code)*, (latest edition)
 |  |  |  |  |  |  |  |
| 1. IMO Resolution A.1050 (27), Revised Recommendations for Entering Enclosed Spaces Aboard Ships
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2018. *International Safety Management Code (ISM Code)*, (latest edition)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. 2014. *Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)*
 |  |  |  |  |  |  |  |
| **Bibliography (B):***The training provider may choose books from bibliographic list or use other or additional references provided it has similar content to the latest edition and addresses the achievement of all intended learning outcomes. Electronic publications may be accepted as alternatives to printed copies of the latest editions and must be sourced from authorized publishers.* |
| 1. International Chamber of Shipping. 2023. *Tanker Safety Guide (Liquefied Gas)*, (Fourth Edition). 7th Floor Walsingham House 35 Seething Lane London EC3N 4AH
 |  |  |  |  |  |  |  |
| 1. Maritime and Coastguard Agency. 2015. *Code of Safe Working Practices for Merchant Seafarers (COSWP)* (Consolidated edition May 2018 incorporating amendments 1 and 2 edition). TSO Standing Order Department, PO Box 29, St. Crispins, Duke Street, Norwich, NR3 IGN
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| 1. OCIMF. CDI, ICS, SIGTTO. 2013. *Ship to Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases*, (First Edition). Witherby Seamanship International, Livingston, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. OCIMF. 2017. *Tanker Management and Self-Assessment 3 (TMSAS3): A Best-Practice Guide* Oil Companies International Marine Forum, 29 Queen Anne's Gate, London, SW1H 9BU, England
 |  |  |  |  |  |  |  |
| 1. OCMIF. 2012. *Marine Terminal Management and Self-Assessment (MTMSA): A Best Practice Guide for Terminal Management* (First Edition) Witherby Seamanship International, Livingston, United Kingdom
 |  |  |  |  |  |  |  |
| 1. SIGTTO. (2023). *Liquefied Gas Carriers: Your Personal Safety Guide,* (Fourth Edition), Witherby Seamanship International, Livingston, United Kingdom
 |  |  |  |  |  |  |  |
| 1. SIGTTO. (2022). *LPG Shipping Suggested Competency Standards: Guidance and suggested Best Practice for LPG industry in the 21st century*. (Second Edition). Witherby Seamanship International, Livingston, United Kingdom
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| 1. SIGTTO. (2016). *Liquefied Gas Handling Principles on Ships and in Terminal,* (Fourth Edition). Witherby Seamanship International, Livingston, United Kingdom
 |  |  |  |  |  |  |  |
| 1. Taylor and Francis (Routledge, CRC). 2006. *LNG Operational Practice*, Witherby Seamanship International, Livingston, United Kingdom
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| 1. Witherby Seamanship International 2007. *Tanker Safety Training (Liquefied Gas) Specialized Level*. Witherby Seamanship International, Livingston, United Kingdom
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| **Accomplished by** | **:** |  |  | **Date** | **:** |  |
|  |  | Name and Signature ofMTI’s Authorized Representative |  |  |  |  |

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| **Table Top Evaluator’s Comments:** |
|  |  |  | **Date of Evaluation** |  |  |  |
|  | **Table Top Evaluator’s Name & Signature** |  |  |  |  |  |
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| **Inspector’s Comments:** |
|  |  |  | **Date of Inspection** |  |  |  |
|  | **Inspector’s Name & Signature** |  |  |  |  |  |
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