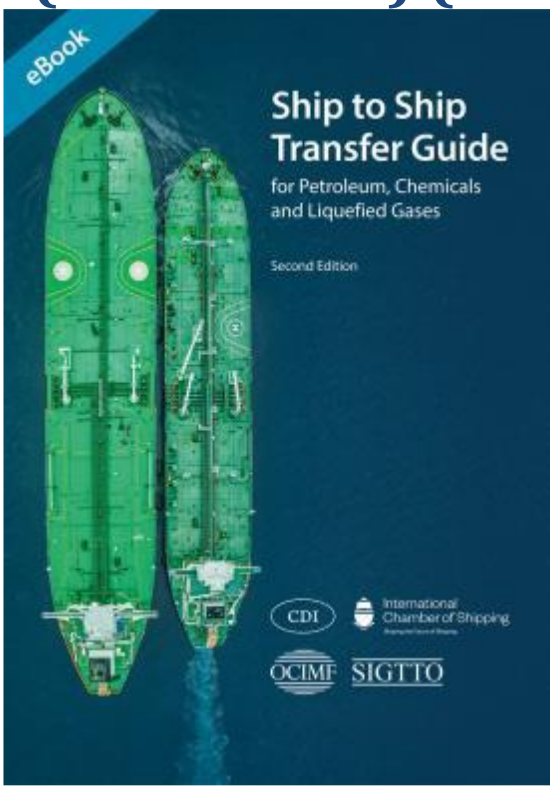
2026 Ship to Ship Transfer (POAC/Superintendent) for Liquefied Natural Gas (LNG or LPG) (3 days)



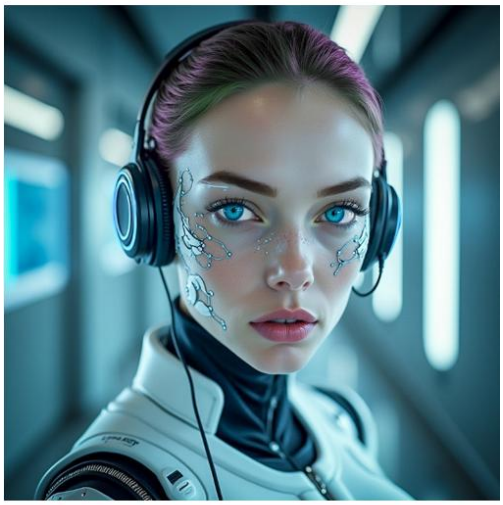
What is new?

- A dedicated chapter on human factors, emphasising the importance of human performance and decision-making in STS operations.
- Updated protocols for personnel transfer, including best practices derived from OCIMF's 'Transfer of Personnel by Crane Between Vessels' information paper, promoting a risk-based approach to safe transfers (Chapter 5)
- Enhanced guidance on STS-specific equipment, including fenders, cargo hoses, vapour hoses and mooring equipment.
- Consolidated cargo operations guidelines within Chapter 10, which is divided into four distinct sections: Oil, Chemicals, LPG, and LNG.
- Revised Ship to Ship Safety Checklists aligned with ISGOTT, reflecting best practices for procedural integrity and risk mitigation. The checklists are organised into six sections, covering the entire STS operation step by step.
- The Guide also outlines key operator responsibilities, including adherence to Flag State and Port State Control requirements, maintaining liability insurance, and

implementing Safety Management Systems (SMS) with best practice STS Operations Plans. Additionally, it introduces terminology updates for enhanced clarity.

What else is new?

Cassandra



'Only those systems that use optimal information can function. Let me test yours'

TTT funded the development of an Artificial Intelligence named 'Cassandra'. Based on The General Law of Functionality, Cassandra can detect knowledge gaps and test and predict HSEQ Performance and Operational Excellence. She acts as an Early Warning System preventing risk. This is a unique service only offered by us.

This training program was created based on the 2013 & 2025 OCIMF, CDI, SIGTTO and the International Chamber of Shipping publication: Ship to Ship Transfer Guide.
It teaches Marine Terminal Supervisors, Marine Superintendents or Expeditors, Cargo Surveyors, Tanker crews, support craft crews, Ship Officers and/or off shore Terminal Managers how to best prepare, operate, control and safely execute and complete complex Off Shore STS Operations.
It helps students to understand best practices and procedures, based on many years operational experience and skill.

All over the world STS operations have become general modus operandi to avoid lengthy and often costly port stay or expensive terminal transfer over jetty charges. The knowledge obtained can be used to verify that STS operations and systems are comprehensive and promote safety and environmental excellence, with the intention of

minimizing risk in the execution of their operations and providing the ability to measure and continuously improve their management systems.

Who should attend?

We invite everyone involved in running and managing Ship to Ship Cargo Transfer Operations, oil traders and vessel operators relying on STS storage and off shore marine terminals to attend this training course as it gives you the opportunity to become aware, learn, visualize, review, improve and perhaps restructure your day to day STS operations where needed.
A systematic approach such as these jointly published OCIMF, SIGTTO, CDI and Chamber of Shipping guideline is crucial to ascertain a high level of operational excellence, prevent marine pollution or damage to the environment and ensure people's safety.
Following the STS Guide, the following chapters and subjects will be addressed:

<u>There will be 10 Sections covered:</u>

1 **General Principles**
- Introduction
- Background
- Scope
- Risk Assessment
- Control of Operations
- Role of a ship to ship superintendent
- Person in overall advisory control
- Training and familiarization of ship's personnel
- Security

2 **Conditions and Requirements**
- Ship to Ship Compatibility
- Ship to Ship transfer operations involving vessels of a similar length
- Use of barges
- Notification to and approval from authorities
- MARPOL Annex 1 Cargoes
- Chemical Cargoes, Other Cargoes
- Transfer Area
- Environmental Conditions
- Cold Weather Precautions
- Ship to Ship operations in ice conditions
- Cargo Sloshing considerations
- Quality assurance of ship to ship service providers

3 Safety

- Risk Assessment of Transfer Location
- Risk Assessment of ship to ship operation
- Personal Protective Equipment and life-saving appliances
- Use of Checklist
- Material Safety Data Sheet
- Gas accumulation on open decks
- Action in case of infringement of safety
- Action in case cargo of cargo leakage
- Safety during cargo transfer
- Helicopter Operations
- Smoking and naked lights
- Earths on electrical switchboards
- Machinery operations
- Electrical isolation
- Other places where electrical arcing may occur
- Use of radio and satellite communication equipment
- Automatic identification systems
- Use of Radar
- Readiness of fire-fighting equipment
- Electrical Storms
- Galley Stoves
- Accommodation openings

4 Communications

- General Communications, Language
- Pre-arrival communications
- Information required from the ships
- Advice to be given to the ships by the ship to ship organizers
- Navigational warnings
- Communications during approach, mooring and unmooring
- Communication during cargo operations
- Procedures for communications failure

5 Operational preparations

- Joint plan of operation
- Preparation of ships
- Lightering / STS support vessels
- Navigational signals

6 Manoeuvring and mooring

- Basic Principles
- Manoeuvring alongside at sea with two ships under power
- General Advice for controlling two ships

- Advice for manoeuvring alongside
- Manoeuvring a combined two ship system to anchor
- Underway transfer
- Manoeuvres with one ship at anchor
- Manoeuvring for in port operations
- Manoeuvring with one ship alongside a terminal
- Mooring operations
- Mooring plans
- Mooring analysis
- At sea mooring operations
- Efficiency of ship to ship mooring systems
- In port mooring operations

7 Procedures Alongside

- Pre-transfer procedures
- Responsibility for cargo operations
- Planning for cargo transfer
- Cargo Transfer – general guidance
- Vapour balancing – general considerations
- Vapour balancing consideration before commencing cargo transfer
- Vapour balancing considerations during cargo transfer
- Vapour hose considerations
- Operations after completion of cargo transfer
- Bunkering and storing

8 Unmooring

- Unmooring Procedure
- Unmooring after underway transfer
- Unmooring while one ship is at anchor
- Unmooring from a ship alongside a terminal
- Unmooring using quick release arrangements

9 Equipment

- Fenders
- Fenders used for sea transfers
- Reference guide for fender selection for sea transfers
- Fender requirements
- Fenders used for in port transfers
- Low pressure fenders
- Foam filled fenders
- Cargo Transfer Hoses
- Hose standards
- Hose length
- Pressure ratings and flow velocities

- Hose handling
- Hose connection
- Hose inspection and testing
- Marking
- Mooring Equipment
- Personnel transfers – at sea operations
- Suitability of lifting equipment
- Personnel transfers – in port operations
- Lighting
- Ancillary equipment for ship to ship operations
- Equipment noise levels

10 Emergencies

- Contingency planning and emergency response procedures
- Emergency signal
- Emergency situations
- Examples of potential emergencies
- Emergencies during manoeuvring
- Procedures in the event of gas accumulation on deck
- Accidental cargo release
- Shipboard Oil Pollution Emergency Plan, Shipboard Marine Pollutions Emergency Plan (SMPEP) and Vessel Response Plan (VRP)
- State of Readiness for an emergency
- Cessation of transfer operations as a precautionary measure

As the class will be interactive ,open discussion are encourage and more in-depth information on the following subjects are offered

- additional procedures for ship to ship transfer on: MARPOL Annex I (Crude oil and Petroleum products)
- MARPOL Annex II (chemicals)
- Liquefied Petroleum Gas Cargoes (LPG)
- Liquefied Natural Gas Cargoes (LNG)
- Example of LNG ship to ship transfer compatibility questionnaire.
- Operational / Safety Checklists for STS
- Example safety checklist for personnel transfer by crane
- Example checklist for transfers involving vapour balancing
- Fender selection calculation
- Reverse lightering operations
- Hose connection guidance, assembling a hose string
- Guidance om risk assessment processes

11 Emergency Preparedness (in cooperation with local, regional or national authorities)

- Emergency response plan
- Spill response plan
- Emergency evacuation plan
- Emergency training

12 Management Systems Review

- Audit plan to address management of all terminal activities
- Standard audit format and process
- Training and qualification requirements auditors
- Monitoring of audit finding to close-out
- Management review of findings

13 Operations at Buoy Moorings

- Establish planning, operational practices and procedures to ensure safe mooring
- Compliance with established standards and accepted industry guidance
- Compatibility of area and size of vessels
- Suitability and capability of support crew and craft
- Monitoring vessel position in relation to the buoy

14 Terminals Impacted by Ice or Severe Sub-Zero Temperatures

- Plans, procedures associated with the operating conditions
- Trained and prepared personnel
- Suitability of fire-fighting, life-saving and first aid equipment
- Selection of vessels for operating in anticipated conditions
- Ice forecasting and weather reports
- Emergency and spill response

Shyam has more than 12 continuous years of successful hands-on problem solving and decision making experience in challenging, dynamic and multifaceted marine work environments at sea and ashore, in a position of responsibility or other crucial decision-making leadership capacities. This includes 7 years as a Captain/Senior officer aboard deep-draft LNG tanker vessels transporting volatile cargoes in the world-wide liquid gas trade, with unblemished safety record as well as outstanding personnel evaluations.
This was followed by 5 years of work experience at LNG and Oil & Gas Terminals in Korea in the capacity of LNG advisor to Shell Trading and Shipping Company (STASCO). During his time with Shell he was responsible for Oil loss control and helped save millions of dollars by preventing shortages and contaminations. Shyam has worked as a Consultant in Korea for P&I clubs in investigating contamination losses of petroleum products. He has successfully reduced the vessel turnaround times and increased berth utilization. He commissioned the 4 largest LNG carriers in the world the Q-Max vessels at LNG Import terminals in Korea. Each vessel is an LNG terminal on its own with a re-liquefaction plant and an enclosed flare. Shyam also supervised the building of 25 Oil and LNG Tankers at Samsung, Daewoo and Hyundai Shipyards in Korea as a Nautical Inspector while working for Shell in South Korea. He provided LNG marine operations, safety and regulatory compliance consulting services to major energy and marine transportation companies. Shyam has significant shore side operations management experience with broad knowledge of commercial aspects of global maritime enterprise and energy shipping. He holds various marine technology patents and copyrights. He is a Master Mariner and a member of the Nautical Institute, UK.
Shyam has trained hundreds of loading masters, operators and managers worldwide for TankTerminalTraining.

We make people better!