

DECK MANAGEMENT TRAINING COURSE

The SIGTTO LNG Shipping Suggested Competency Standards (3rd Edition) define 8 performance outcomes at Deck Management level. Each performance outcome comprises

- Knowledge and understanding – acquired from 7 eLearning modules
- Levels of competence – achieved through experiential learning onboard LNG carrying vessels over a minimum of 30 days service

During the onboard training period(s)/sea service, candidates should be able to demonstrate the levels of competence listed under each performance outcome in this document. The Master or Chief Officer will verify the attainment of competence which will be attested in a company letter, to be submitted as part of the candidate's certificate application.

The Levels of Competence at the Deck Management level follow:

1.0 Performance Outcome - Develop Familiarisation and Understanding of LNG Transportation Requirements

You should be able to do the following:

- Identify the properties and characteristics of liquefied gases and other relevant gases and determine their impact on safety and vessel operations.
- Identify the regulations and guidelines, vessel designs, characteristics, propulsion systems, materials and cargo related equipment and determine their impact on cargo storage, transportation and containment.
- Determine specific loading and discharging features and cargo cycles and confirm individual responsibilities of those involved.
- Identify the ship to shore or ship to ship (STS) interface and equipment and determine any issues they might raise during vessel and cargo operations.
- Confirm the specific vessel and cargo operations risk assessment requirements and processes for those involved.

2.0 Performance Outcome - Manage and Operate Safety Systems and Equipment

You should be able to do the following:

- Identify the safety systems and equipment required for carriage of LNG, its parameters, operating specifications and limits and maintenance requirements.
- Confirm that the status of the safety systems and equipment meets operating parameters and requirements.
- Confirm appropriate monitoring systems and required tests for safety systems and equipment.
- Confirm individual responsibilities for maintaining, testing and inspecting safety systems and equipment.
- Verify the results of maintenance, testing and inspection of safety systems and equipment and where they are not in line with required parameters, determine the relevant action and/or inform the appropriate person.
- Operate safety systems and equipment as required in line with regulations, procedures, guidelines and safety practice.
- Provide accurate and complete records.

3.0 Performance Outcome - Prepare and Implement a Detailed Plan for the Entire Cargo Cycle

You should be able to do the following:

- i. Identify the stages of the cargo cycle and the planning requirements for each stage.
- ii. Confirm issues, operational aspects and health and safety considerations that may impact the plan.
- iii. Produce a detailed plan for each stage of the cargo cycle, ensuring health and safety considerations are paramount.
- iv. Confirm with those involved in the planned operation that they understand their own responsibilities and the responsibilities of others, where relevant
- v. Implement the plan in line with agreed procedures, guidelines and health and safety practice

4.0 Performance Outcome - Monitor and Review Cargo Operations

You should be able to do the following:

- i. Confirm cargo operation details and clarify the operational aspects required to ensure effective and appropriate monitoring activities.
- ii. Carry out and monitor checks at relevant times and critical points, and instruct others, as required, to confirm correct and appropriate implementation of the operational plan.
- iii. Identify appropriate changes to the plan where its execution shows shortfalls or problems or raises issues during implementation.
- iv. Take appropriate action to deal with any problems that arise during implementation, in line with safety and organisational requirements.
- v. Instruct others as required and implement identified changes in line with applicable regulations, procedures, guidelines and safety practice.
- vi. Review the operation with relevant personnel and evaluate the potential for safer and more efficient improvements and adaptations.
- vii. Provide feedback to relevant personnel and record appropriate information about the monitoring activity and outcomes of the review in line with organisational requirements.

5.0 Performance Outcome - Plan for and Manage Cargo Operations Under Non-Standard Conditions

You should be able to do the following:

- i. Determine the type, nature and scale of the condition from alarms and relevant sources.
- ii. Identify the options for how to deal with the condition safely and in a controlled manner.
- iii. Carry out risk assessments and planning for each option and determine the most appropriate plan and course of action to deal with the situation.
- iv. Provide accurate and clear instructions and information to relevant people to carry out the plan.
- v. Put the determined plan into operation in a timely and safe manner.
- vi. Monitor the effects of the plan as required, and identify and make appropriate adjustments.
- vii. Review the plan and operational procedures at the appropriate time and identify lessons learnt and provide feedback to relevant people

6.0 Performance Outcome - Plan for and Manage Cargo Operations Under Emergency Conditions

You should be able to do the following:

- i. Determine the type, nature and scale of the emergency from alarms and relevant sources.
- ii. Identify the options, carry out risk assessments and determine the appropriate course of action to deal with the emergency safely and in a controlled manner.
- iii. Provide accurate and clear instructions and information to relevant people to deal with the emergency.
- iv. Monitor the actions being carried out, confirm the desired effect and determine necessary corrective actions where required.
- v. Confirm the emergency condition is being managed and the situation mitigated.
- vi. Provide accurate and complete records

7.0 Performance Outcome - Ensure the Integrity of Cargo Containment, Cargo Equipment and Cargo Related Spaces

You should be able to do the following:

- i. Identify cargo containment operational parameters.
- ii. Identify the equipment required for cargo operations, its parameters, operating specifications and limits and maintenance requirements.
- iii. Confirm status of the equipment meets operating parameters and requirements.
- iv. Identify the function and conditions of cargo related spaces.
- v. Confirm appropriate monitoring systems and required tests for cargo containment, cargo equipment and cargo related spaces.
- vi. Confirm individual responsibilities for maintaining, testing and inspecting cargo containment, cargo equipment and cargo related spaces.
- vii. Determine an appropriate course of action where problems and issues with effectiveness of the maintenance, testing and inspection are identified and inform the relevant personnel.
- viii. Ensure accurate and complete records are maintained.

8.0 Performance Outcome - Develop an Awareness of the Commercial Aspects of LNG Transportation

You should be able to do the following:

- i. Identify the standard terms and conditions under which LNG is bought and sold and their implications for vessel operations.
- ii. Identify the standard terms and conditions under which LNG is transported and their implications for vessel operations.