

# LNG Marine DISCHARGING Terminal LNGC Ship/Shore Safety Checklist

**Vessel:** LNGC **Date:** \_\_\_\_\_  
**Port:** \_\_\_\_\_ **Terminal:** LNG Marine Discharging  
**Date of Arrival:** \_\_\_\_\_ **Time of Arrival:** \_\_\_\_\_

## Instruction for Completion:

The safety of operations requires that all questions should be answered affirmatively by clearly ticking the appropriate box. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions to be taken between the ship and the terminal. Where any question is considered to be not applicable, then a note to that effect should be inserted in the remarks column. A box in the columns ~~Ship~~ and ~~Terminal~~ indicates that checks should be carried out by the party concerned.

The presence of the letters **A**, **P** or **R** in the column ~~Code~~ indicates the following:

**A** – any procedures and agreements should be in writing in the remarks column of this Check List or other mutually acceptable form. In either case, the signature of both parties should be required.

**P** – in the case of a negative answer, the operation should not be carried out without the permission of the Port Authority.

**R** – indicates items to be re-checked at intervals not exceeding that agreed in the declaration.

## Part 'A' – Bulk Liquid General – Physical Checks

Bulk Liquid . General	Ship	Terminal	Code	Remarks
1. There is safe access between the ship and shore	✓	✓	<b>R</b>	Shore Gangway
2. The ship is securely moored.	✓	✓	<b>R</b>	3 +3 +2 F & A No tension monitor available 30 knots: Stop Loading 35 knots: Disconnect 40 knots: Un-berthing
3. The agreed ship/shore communication system is operative		✓	<b>A R</b>	<b>System:</b> UHF marine Ch.77 <b>Backup System:</b> Hot Telephone No. 222
4. Emergency towing-off pennants are correctly rigged and positioned			<b>R</b>	Not required at this Terminal
5. The ship's fire hoses and fire-fighting equipment are positioned and ready for immediate use.	✓		<b>R</b>	All Dry powder hose handling hose deployed on deck, ready for use
6. The terminal's fire-fighting equipment is positioned and ready for immediate use.		✓		
7. The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.	✓			
8. The terminal's cargo and bunker hoses or arms are in good condition, properly rigged and appropriate for the service intended.		✓		
9. The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges	✓	✓		

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	prior to connection.				
10.	Scuppers and save-alls on board are effectively plugged and drip trays are in position and empty.	✓		<b>R</b>	Tested before arrival and confirmed tight
11.	Temporarily removed scupper plugs will be constantly monitored.	✓		<b>R</b>	For water draining Terminal permission required to be obtain
12.	Shore spill containment and sumps are correctly managed.		✓	<b>R</b>	
13.	The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.	✓			Unused connections fully bolted with blank flanges
14.	The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted.		✓		
15.	All cargo, ballast and bunker tank lids are closed.	✓			
16.	Sea and overboard discharge valves, when not in use, are closed and visibly secured.	✓			
17.	All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.	✓		<b>R</b>	All shut, except paint locker and battery locker vents
18.	The ship's emergency fire control plans are located externally.	✓			<b>Location:</b> Gangway, Accommodation P & S

***If the ship is fitted, or is required to be fitted, with an inert gas system (IGS), the following point should be physically checked:***

Inert Gas System	Ship	Terminal	Code	Remarks
19. Fixed IGS pressure and oxygen content recorders are working.	✓		<b>R</b>	Monthly Test carried out
20. All cargo tank atmospheres are at positive pressure with oxygen content of 8% or less by volume.	✓		<b>P R</b>	O <sub>2</sub> = 0 % by Vol. Atmosphere 100 % HC by Vol.

### Part 'B' – Bulk Liquid General – Verbal Verification

Bulk Liquid . General	Ship	Terminal	Code	Remarks
21. The ship is ready to move under its own power.	✓		<b>P R</b>	Engine on Short Notice, no immobilization permitted
22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal.	✓	✓	<b>R</b>	3 deck watchman available at all times
23. There are sufficient personnel on board and ashore to deal with an emergency.	✓	✓	<b>R</b>	Company SMS to be followed. Shore Leave as agreed on pre-arrival meeting
24. The procedure for cargo, bunker and ballast handling have been agreed.	NN	MM	<b>A R</b>	As per Cargo Agreement

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25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and understood.	NN	MM	<b>A</b>	<b>For Cargo:</b> see communication agreement, ESD 1 link, and UHF Radio <b>Other Emergency:</b> <b>Ship &amp; Shore:</b> Emergency Signal is 3 x Emergency broadcast and PA
26. Material Safety Data Sheets (MSDS) for the cargo transfer have been exchanged where requested.	✓	✓	<b>P R</b>	MSDS Provided to Ship:
27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.	✓	✓		<del>H2S Content:</del> <del>Benzene Content:</del> CH4 Content: TLV TWA 1000 ppm
28. An International Shore Fire Connection has been provided.	✓	✓		Terminal's connection located on south side of Loading Platform. Ship's Connection on the Gangway
29. The agreed tank venting system will be used.	NN	MM	<b>A R</b>	Method: Vapour return Line to Shore
30. The requirements for closed operations have been agreed.	✓	✓	<b>R</b>	Closed gauging (Radar and Floaters)
31. The operation of the P/V system has been verified.	✓			Last DD 2018 verified operation
32. Where a vapour return line is connected, operating parameters have been agreed.	NN	MM	<b>A R</b>	Shore 59 kPa alarm & 99 kPa ESD-1
33. Independent high level alarms, if fitted, are operational and have been tested.	NN		<b>A R</b>	Test 2 days before arrival TPS level: 99 % ESD Level: 99.5 %
34. Adequate electrical insulating means are in place in the ship/shore connection.		✓	<b>A R</b>	Insulating flange on arms and insulating rollers on gangway
35. Shore lines are fitted with a non-return valve, or procedures to avoid back filling have been discussed.		✓	<b>P R</b>	
36. Smoking rooms have been identified and smoking requirements are being observed.	NN	MM	<b>A R</b>	Nominated smoking rooms: Terminal & LNGC: Outside Building
37. Naked light regulations are being observed.	NN	MM	<b>A R</b>	No naked Lights allowed
38. Ship/shore telephones, mobile phones and pager requirements are being observed.	NN	MM	<b>A R</b>	
39. Hand torches (flashlights) are of an approved type.	✓	✓		Intrinsically safe equipment
40. Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off.	✓			VHF & AIS : Low power
41. Portable VHF/UHF transceivers are of an approved type.	✓	✓		Explosion proof type
42. The ship's main radio transmitter aerials are earthed and radars are switched off.	✓			Ship's Main Radio Grounded Radars: OFF

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43. Electric cables to portable electrical equipment within the hazardous area are disconnected from power.	✓	✓		
44. Window type air conditioning units are disconnected.	✓	✓		N/A and all Windows shut
45. Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.	✓			Positive pressure maintained inside accommodation. Air intake gas detection alarm set 30% LEL
46. Measures have been taken to ensure sufficient mechanical ventilation in the Pump Room.			<b>R</b>	N/A
47. There is provision for an emergency escape.	✓	✓		Terminal: Refer to Evacuation Route LNGC: Starboard Side Gangway
48. The maximum wind and swell criteria for operations have been agreed.	NN	MM	<b>A</b>	Stop cargo at: 30 kts wind Disconnect at: 35 kts wind Unberth at: 40 kts wind
49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, is appropriate.	NN	MM	<b>A</b>	Terminal MarSec Level: 1 Ship MarSec Level: 1 Visitor Log Book maintained
50. Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship's tanks, or for line clearing into the ship.	NN	MM	<b>A P</b>	Using Shore N2

### Part 'D' – Bulk Liquid Gases – Verbal Verification

Bulk Liquefied Gases	Ship	Terminal	Code	Remarks
1. Materials Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.	✓	✓		MSDS provided and posted in Ships Recreation Rooms and CCR
2. A manufacturer's inhibition certificate, where applicable, has been provided.			<b>P</b>	N/A
3. The water spray system is ready for immediate use.	✓	✓		Ready for immediate use, Tested two days before arrival
4. There is sufficient suitable protective equipment (including self-contained breathing apparatus) and protective clothing ready for immediate use.	✓	✓		
5. Hold and inter-barrier spaces are properly inerted or filled with dry air, as required.	✓			IBS & IS filled with N2 IBS 0.7 kPa(G) IS 1.2 kPa(G)
6. All remote control valves are in working order.	✓	✓		Operationally Tested and timing taken. Position indicators verified locally and remotely
7. The required cargo pumps and compressors are in good order, and the maximum working pressures have been agreed between ship and shore.	NN	MM	<b>A</b>	As per cargo Agreement

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8. <del>Re-liquefaction</del> or boil-off control equipment is in good Order:	✓	✓		
9: The gas detection equipment has been properly set for the cargo, is calibrated, has been tested and inspected and is in good order.	✓	✓		Methane CH4 Calibration Span Gas A1 @ 30% LEL A2 @ 60 % LEL
10. Cargo system gauges and alarms are correctly set and in good order.	✓	✓		Radar gauges to be compared with Floats gauges at 25, 50, 75, 90 % during cargo operation
11. Emergency shutdown systems have been tested and are working properly.	✓	✓		Tested 2 days before Arrival
12. Ship and shore have informed each other of the closing rate of ESD valves, automatic valves or similar devices.	NN	MM	<b>A</b>	Ship: 28 Sec.  Shore: 5 seconds
13. Information has been exchanged between ship and shore on the maximum/minimum temperatures/pressures of the cargo to be handled.	NN	MM	<b>A</b>	Manifold max. press.: 5 bars Cargo Tanks type: 2G Max. Cargo density: 500 kg/m3 Tank pressure: 25 kPa Min. Cargo Temp.: - 163 C
14. Cargo tanks are protected against inadvertent overfilling at all times while any cargo operations are in progress.	✓			Test 2 days before arrival TPS level: 99 % ESD Leve: 99.5 %
15. The compressor room is properly ventilated, the electrical motor room is properly pressurised and the alarm system is working.	✓			30 times exchange capacity with one fan running. Motor room supply. Compressor room extract from top. Continuously running
16. Cargo tank relief valves are set correctly and actual relief valve settings are clearly and visibly displayed. ( <i>Record settings below.</i> )	✓	✓		

Tank No 1	<b>25 kPa</b>	Tank No 5		Tank No 8	
Tank No 2	<b>25 kPa</b>	Tank No 6		Tank No 9	
Tank No 3	<b>25 kPa</b>	Tank No 7		Tank No 10	
Tank No 4	<b>25 kPa</b>				

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## DECLARATION:

We, the undersigned, have checked the above items in Parts A and B, and where appropriate Part C or D, in accordance with the instructions, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

We have also made arrangements to carry out repetitive checks as necessary and agreed that those items with code ~~R~~q in the Check-List should be re-checked at intervals not exceeding \_\_\_\_\_ hours.

If to our knowledge the status of any item changes, we will immediately inform the other party.

For Ship	For Shore
Name _____	Name _____
Rank _____	Position or Title _____
Signature _____	Signature _____
Date _____	Date _____
Time _____	Time _____

## Record of repetitive checks:

Date:					
Time:					
Initials for Ship:					
Initials for Shore:					

Date:					
Time:					
Initials for Ship:					
Initials for Shore:					