Terminal Regulations & Information Booklet

Rev.nr.5/2023

Terminale GNL Adriatico s.r.l

Italy

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1.0 INTRODUCTION - DEFINITION

The Terminal Regulations are an agreement between Terminale GNL Adriatico S.r.L and the Master of the LNG Carrier which supplement the Maritime Safety Regulations Order n.38/2023 and Temporary Authorization Nr 67/2023, issued by the Chioggia Coast Guard ("Maritime Safety Regulation") and any Laws, regulation expressly applicable to it to ensure safe and efficient operations at the Terminal.

They also:

- Provide the Master of LNG Carrier with a source of additional information and procedures pertinent to operations at the Terminal.
- Should be read in conjunction with the Maritime Safety Regulations and other applicable Laws to ensure that the Master of the LNG Carrier is compliant with all applicable Laws and any other Terminal-specific requirements.

Application

The ***Terminal Regulations*** apply to all LNG Carriers including Persons operating on their behalf at the Terminal berth.

1. - DEFINITIONS

- **ALNG**: means Terminale GNL Adriatico SRL, the Terminal operating company.
- **CARGO EQUIPMENT**: means cargo pumps, cargo compressors, cargo vaporizers, inert gas generators, motors, control equipment, and other cargo-handling equipment (e.g. reliq. Plant, GCU). It also includes, where appropriate, primary and emergency power supply, circulating pumps and other auxiliary equipment essential for safe and efficient operations.
- **CREW**: means collectively the personnel involved with cargo-handling operations, and all other persons related to these operations on behalf of the LNG Carriers.
- **GOVERNMENT ENTITY:** means any legislative, judicial, regulatory or executive body (including any agency, bureau, department, commission or office) of the government of any sovereign state or any political subdivision thereof – including the Maritime Authority – or the institutions of the European Union including the European Commission.
- **GRID:** means the national and regional transport system for Gas as defined in the MICA decree of the 22nd of December 2000, as such decree is published in the Gazzetta Ufficiale, serie generale, 23-11-2001 n. 18 but, for the purposes of this Terminal Regulation, excludes the pipeline which runs from the offshore plant of the Terminal to and including the Cavarzere Entry Point.
- **INTRINSICALLY SAFE**: means the condition whereby any spark or thermal effect, generated by the normal operation or accidental failure of the equipment, is incapable, under prescribed test conditions, of igniting a prescribed gas mixture. Any equipment so rated will be certified by an appropriate body as "intrinsically safe."
- **LAWS** : means all applicable laws, treaties, conventions, statutes, rules, regulations, decrees, ordinances, licenses, permit compliance requirements, decisions, orders, directives and policies that are enforceable through regulatory and/or judicial process of any Government Entity.
- **LINE HANDLERS**: has the meaning specified in the Maritime Safety Regulation
- **LNG:** means liquefied natural gas.
- **LNG Carrier**: means liquefied natural gas carrier, constructed and equipped for the transportation of liquefied natural gas in bulk at specified temperatures and pressures corresponding to the atmospheric boiling points of the liquefied gases.
- **LNG Carrier Owner** : is the Person with name given to in Attachment 11.2 who owns under any title the LNG Carrier.

- **MARITIME SAFETY REGULATIONS:** has the meaning specified in the Introduction (Ord.63/08)
- **MASTER:** means, when used in relation to an LNG Carrier, any person having the command of the LNG Carrier, or a responsible person delegated by the Master to undertake general or specific duties in liaison with the Terminal, provided that the Master shall at all times have sole responsibility for the compliance with the Terminal Regulation.
- **NAKED LIGHTS**: means open flames, exposed incandescent material or any other unconfined source of ignition.
- **MARITIME AUTHORITY**: means Chioggia Coast Guard, in his capacity as the party entrusted with the administration and enforcement of the applicable Maritime Safety Regulations.
- **NOTICE OF READINESS:** has the meaning specified in article 3.2.1.
- **OFFSHORE INSTALLATION MANAGER:** means the person in charge of the safe operation of the Terminal.
- **PERSON:** means any natural person, corporation, company, partnership (general or limited), limited liability company, business trust, Government Entity or other entity or association.
- **PILOT** and **PILOTAGE:** has the meaning specified in the Maritime Safety Regulation.
- **SHIP'S AGENT:** means the agent appointed by the LNG Carrier Owner or Charterers to act on behalf of the LNG Carrier in arranging Marine services and Government Entity clearance requirements for the LNG Carrier to offload at the Terminal and other obligations to be carried out by such agent on behalf of the LNG Carrier pursuant to these Terminal Regulations.
- **Ship/Shore Compatibility Study (SSCS):** means the risk analysis evaluation carried before the arrival of LNGc related to the technical compatibility between LNGc and Terminal
- **TERMINAL**: means the LNG receiving facility, geographically located at the coordinates provided for in article 2.1, including berth area and other facilities within the 2000m exclusion zone.
- **TERMINAL REGULATIONS:** means this agreement which applies to all LNG Carriers including Persons operating at the Terminal berth.
- **TERMINAL REPRESENTATIVE:** means the designated person who will board the LNG Carrier on behalf of ALNG and will act as co-coordinator between ALNG and LNG Carrier. The Terminal Representative or 'Loading Master' is in direct communication with the Terminal Control room.
- **THIRD PARTY:** means any Person not a party to this agreement.
- **TUG**: has the meaning specified in the Maritime Safety Regulation.
- **UNLOADING:** means the technical operations (following the mooring of an LNG Carrier at the Terminal and the safe setting of the receiving equipment) used to transfer an LNG Carrier's cargo to the Terminal's storage tanks, in accordance with the procedures provided in the Marine Operations Manual Chapter 8, "LNGC Operations" (previously known as Cargo Handling Manual), and "Unload" and "Unloaded" and similar expressions shall be construed accordingly.

2.0 General Information

2.1 Terminal Location

The Terminal is located approximately 10 nautical miles ENE of Porto Levante. The coordinates of the Terminal and Anchorage area are:

Terminal	**45° 05'.3N; 012°35'.1 E**
Anchorage Area (CST) Is a Regulated Squared area identified by Chioggia Coast Guard where limits are:	A) Lat. 45°10'.20N - Long. 012°25'.00E; B) Lat. 45°10'.20N - Long. 012°26'.18E; C) Lat. 45°09'.28N - Long. 012°25'.00E; D) Lat. 45°09'.28N - Long. 012°26'.18E. **Chioggia Tanker Anchorage**

LNG Carriers requiring anchoring must first seek Maritime Authority authorization on VHF channel 14

2.2 Restricted areas and Safety Zones

A 2000-mtrs or 1,1 Nm radius Safety zone exists around the Terminal in which navigation and fishing activities are prohibited.
Access to the exclusion zones is restricted exclusively to LNG Carriers calling at the Terminal, mooring support vessels and support service vessels, either working for or authorized by ALNG and Marine Authority, as well as those vessels associated with law enforcement agencies.

There is also a 1.5 Nm radius Area to be Avoided (ATBA) / No anchoring area around the Terminal.

2.3 Berth Approval Parameters

The Terminal is designed to provide a safe mooring for LNG Carriers satisfying the following size limitations:

Maximum Cargo Capacity	217,000 Cubic Meters
Maximum Overall Length	320 meters
Maximum Beam	50 meters
Maximum Moulded Depth	27 meters
Maximum Loaded Draft	13 meters
Gross Tonnage (GRT)	145,000 Tonnes

All LNG Carriers must conduct LNG cargo discharge and ballast operations simultaneously to minimize the exposed wind area of the LNG Carrier while moored. (See section 8 - State of Readiness)

2.4 Environmental Conditions

2.4.1 General information.

The Terminal is under the influence of the Northern Adriatic Sea climate. Migrating extra tropical cyclones cause weather variations, which enter Europe from the North Atlantic Ocean either in the vicinity of Normandy, France, or across the coast of Portugal. Most of these systems follow a common trajectory to northern Italy and then exit the northern Adriatic to the Northeast, East, or Southeast. Another phenomenon causing significant variations in the weather is origination of a low-pressure storm system in the region itself. This latter event is common in the months of January, February, and July.

The main winds in the area are the "*Bora*" and the "*Scirocco*".

Bora is a wind originating from the Northeast, but its direction shifts with topographic and migratory influences. Offshore Venice, it tends to arrive as an inflow of continental Polar or Arctic air through Trieste (I). Sometimes it funnels through the East Coast of the Adriatic, arriving from the ENE sector.

The most noteworthy aspect of *Bora* winds is that they sometimes "spill" out of the mountains with an abrupt rise in velocity, spawning squalls and yielding wind speeds of 55 to 70 knots within a few hours. *Bora* winds are most intense from October through May and typically last ½ to 2 days.

The *Scirocco* emerges from the south as tropical continental air that has lifted up moisture from the Mediterranean Sea. As the air moves up the Adriatic, its wind rotates such that it arrives near to the Terminal site from an easterly direction, typically with very cloudy conditions. *Scirocco* winds are most intense from January to May in this region and tend to last from 1 to 3 days.

The information provided in this article 2.4.1. are indicative only (i.e. non-binding).

2.4.2 Weather Reports

Periodic daily weather forecasts are available around-the-clock from, among others sources, ALNG.

These weather forecasts are indicative only. ALNG shall not be liable in any manner and under no circumstances towards the LNG Carrier and/or Third Parties for their use.

2.5 LNG Carrier Domestic Matters

Bunkers and potable water	There are no bunkering or potable water facilities at the Terminal available for LNGC. Bunkering activities are not permitted at the Terminal or within the Terminal Safety Zone.
Garbage Facilities	There are no garbage reception facilities at the Terminal.
Provisions, stores and crew changes	There are no facilities to accommodate provisions storing or crew changes at the Terminal. Master and Ship's Agents should schedule crew changes or stores deliveries: ➢ Prior to berthing, ➢ After unberthing, or ➢ While at anchor. The LNG Carrier may store or effect crew changes from supply boats when alongside only with the prior written permission of ALNG **Supply boats shall not come alongside the LNG Carrier and stores and/or spares shall not be loaded or unloaded during cargo-handling operations.**
Repairs	Repairs, except those as agreed upon with ALNG to facilitate safe or continued operations while at the Terminal, are prohibited.

Medical care	While there are limited medical facilities available on the Terminal, emergency medical evacuation to shore may be organized by ALNG upon request and at the expense of the LNG Carrier. The transportation mode depends on logistic planning and availability and is decided by ALNG. The Ship's Agent makes written requests to ALNG for medical evacuation. The Ship's Agent is responsible for logistic arrangements for the evacuees upon arrival on shore.

2.6 ALNG - Terminal Representative

The Terminal Representative (Loading Master) may board the LNG Carrier with the Pilot before the beginning of mooring operations. Alternatively the Loading Master can board the LNG Carrier through the Terminal.

The Terminal Representative (Loading Master) acts as coordinator for all LNG Carrier/shore operations and may remain onboard during the LNG Carrier unloading.

He/she also provides local advice to the Master should any emergency arise.

2.7 LNG Carrier Documentation

It is the Master's responsibility to ensure that the LNG Carrier has updated versions of the following documents:

- *Chioggia Coast Guard Ordinance nr.38/2023 and and Temporary Authorization Nr 67/2023*
- *Terminal Regulations*
- *Marine Operations Manual (e.g. Chapter 8, "LNGC Operations")*

The above updated documents are available also at the ALNG website:

https://www.adriaticlng.it/en/market-area/services/maritime-services

Ship's Agent will also forward copies of these Terminal Regulations and Chioggia Coast Guard Ordinance Nr. 38/2023 to the LNG Carrier's Master prior to the LNG Carrier's arrival.

Prior to arrival at the Terminal, the Master is to confirm receipt and execution of the Terminal Regulations and Chioggia Coast Guard Ordinance Nr. 38/2023 to the Terminal, Maritime Authority and the Agent

It is the Master's responsibility to produce to the Terminal Representative the "*LNG Carrier Emergency departure procedures"*

3.0 Arrivals

3.1 Communication Information

Except as otherwise provided herein or agreed, all notices or declarations sent by one Party to the other shall be in writing and shall be delivered by letter (overnight mail or courier, postage pre-paid), email or facsimile to the following addresses:

Item	Description
VHF operating channels	[**08**] and [**16**]24 hours per day
Terminal Postal Address	**Terminale GNL Adriatico srl** Viale Porta Adige, 45 Pad.D Cap 45100 Rovigo Italy Att.n Logistic Department-Loading Masters
Terminal e-mail	alng_oim@adriaticlng.it
Terminal Fax	+39 0426 361250/352
Terminal Telephone	+39 0426 361201/316
ALNG e-mail	marco.busetti@adriaticlng.it giuseppe.ferreri@adriaticlng.it
ALNG Fax	+39 0426 361600
ALNG Telephone	+39 3346551197 (Giuseppe Ferreri) +39 3316479200 (Marco Busetti)

In case of emergency communication can be made verbally but shall be confirmed in written in due time.

Above point of contacts may be time-to-time amendment through a written communication (fax or e-mail) from ALNG's Loading Masters to the Master.

All communications between ALNG and LNG Carrier and/or Ships Agent shall be in English

3.2 Pre-Arrival Communications

Master must send via fax or e-mail the information and estimated times of arrival (ETAs) as listed below:

- *Departure notice at loading port, including:*
  - *Loading port of the LNG Carrier; and*
  - *Name of the LNG Carrier; and*
  - *Time and date when LNG loading was completed; and*
  - *The quantity of LNG loaded and the portion of such quantity to be unloaded at the terminal if less than the full quantity; and*
  - *LNG'c arrival condition for offloading manifolds (cold condition); and*
  - *ETA of the LNG Carrier.*
- *Updated notification of change of ETA if 12 hours or greater*
- *48 hours before arrival, with updated notification of change if 6 hours or greater*
- *24 hours before arrival, with updated notification of change if 3 hours or greater*
- *5 hours before arrival*
- *Updates when in VHF range with the LNG Carrier maintaining a listening watch on Terminal VHF Operating Channels*

Pre-arrival information shall be transmitted to ALNG no less than 48 (forty-eight) hours prior to arrival at the Terminal. See ***Attachment 11.2 Pre-Arrival Information***

Masters are obliged to report to ALNG without delay any defects or deficiencies that may affect the safety or the performance of operations to be conducted while the LNG Carrier is within the Safety Zone and/or when the LNG Carrier is at the Terminal.

The following checks and tests must be carried out successfully on board the LNG Carrier and duly recorded within 3 (three) days prior to the estimated time of berthing:

- *Water Spray systems*
- *Fire pumps*
- *Atmosphere condition of hold spaces if inerting is not required*
- *Operation of cargo system remote control valves and their position indicators*
- *Alarm function of fixed gas detection equipment*
- *Primary custody transfer and alarm set points*
- *Operation of Emergency Shut-down system (ESD)*

The Master must report to ALNG without delay any defects or deficiencies concerning these checks and tests.

The Master provides confirmation of such checks to ALNG during the Pre-Transfer Meeting.

3.2.1 Notice of Readiness

Upon arrival at the Pilot boarding station, the LNG Carrier Master or the Ship's Agent must give notice to ALNG that the LNG Carrier is ready to berth at the Terminal and to Unload ("Notice of Readiness")

Prior tendering a Notice of Readiness the LNG Carrier Master must verify that the LNG Carrier has reached the Pilot boarding station, that the LNG Carrier is ready for all purposes of berthing and for Unloading.

The Notice of Readiness (NOR) is tendered by fax or e-mail no later than 24Hrs prior to the berthing and shall:

- *Be Signed by the Master of the LNG Carrier; and*
- *State the time and date when it was given; and*
- *Be Addressed to the Offshore Installation Manager.*

On receipt of the Notice of Readiness, ALNG will provide the LNG Carrier with instructions for berthing at the Terminal

In the event the LNG Carrier has tendered Notice of Readiness without satisfying the conditions to tender, then ALNG shall issue to the LNG carrier, in due time, a notice of protest invalidating such Notice of Readiness.

3.3 Navigation, Pilotage and Berthing

3.3.1 Pilotage

Pilotage is compulsory using the ALNG approved Pilotage service. VHF contact shall be established with the "Chioggia Pilot station" on Channel 11/14 when within range. The boarding position for the Pilot and Terminal Representative is approximately CST (Chioggia Small Tanker) anchorage area, or, subject to safe weather condition, the Pilot can board at 3.5 nautical miles West North West of the Terminal.

During the unberthing, in case of adverse weather conditions, the Pilot can request, at his discretionary option, to disembark close to the CST

The LNG' Carrier shall guarantee the best lee conditions to allow safety embarkation and/or disembarkation.

3.3.2 Pilot Ladder

Pilot ladders for embarkation must be as per SOLAS Annex I Chapter V Regulation 23 Pilot transfer arrangement and the IMO "Resolution A.1045(27) "PILOT TRANSFER ARRANGEMENT" Adopted on 30 November 2011 (Agenda item 9); ICS-IMPA "Shipping Industry Guidance on Pilot Transfer arrangements" Version 3-2022

3.3.3 Tug Assistance Vessels

LNG Carriers are required to berth and un-berth with ALNG-approved tugs.

Tugs are also required to remain in close proximity to the Terminal throughout the LNG Carrier's stay at the berth and be available in case of early departure requirements or emergency situations.

At least two of the tugs will remain in the immediate vicinity of the LNG Carrier and be available to render assistance or firefighting support within 10 minutes; the remaining tugs will be available within 30 minutes within the safety zone or ATBA.

The tugs in immediate vicinity to the LNG Carrier and Terminal will maintain a security watch to the offshore side of the LNG Carrier.

The number and power of tugs indicated in the following table :

LNG Carrier	Number of tugs – Berthing	Number of Tugs – Unberthing
All LNG Carriers	4 x 65t Bollard Pull	4 x 65t Bollard Pull

However, if, for any reason, a fourth tug is unavailable,temporarily or not, the Offshore Installation Manager, Loading Master, Pilot and Master may agree, subject to the approval of the Maritime Authority, that only three tugs are used for berthing and/or unberthing the LNG Carrier.

3.3.4 Line Handling Service

LNG Carriers will be assisted by ALNG approved line-handling boats and mooring crews. Line-handling boats and crews together with mooring crews on the Terminal stationed at each end of the LNG Carrier will transfer and secure the mooring lines.

A mooring crew will also remain (at least two Persons) on the Terminal during the LNG Carrier offloading on call to unberth the LNG Carrier and be available in case of emergency or requirement to renew or secure a mooring line.

See: 4.0 Mooring and Unmooring

3.3.5 Ship Agency

The LNG Carrier-appointed Ship's Agent is responsible for booking and coordination of the Pilot, Tug and Line Handling services.

Ship Owner, Charterer and Ships Agents are directed to the ALNG website (www.adriaticlng.it) for further details.

The Ship's Agents shall liaise and communicate with ALNG concerning the LNG Carrier ETA and the schedule requirements of the Pilot, Tug and Line-handling services.

The Ship's Agent will also advise ALNG of other requirements that the LNG Carrier may have while at the Terminal, including:

- Planned storing activities
- Crew changes (not allowed when LNGc is at Terminal)
- Visiting personnel to the LNG Carrier
- Cargo surveyor arrangements
- Other planned activities

The Ship's Agent will be responsible for arranging transportation to and from the LNG Carrier to conduct business on behalf of the LNG Carrier.

3.4 Status of LNG Carrier Equipment

The Master of the LNG Carrier **MUST** notify the Pilot and Terminal Representative of any limitations or deficiencies which might impose special hazards in connection with handling, mooring or Unloading the LNG Carrier, such as defective (for example but not limited to):

- *Propulsion,*
- *Steering equipment,*
- *Lines or gear,*
- *Cranes/booms, or*
- *Cargo equipment.*

The Terminal Representative may conduct a Pre-Berthing Operational Safety Inspection of the LNG Carrier including but not limited to the following:

- *Mooring arrangements and equipment*
- *Brake test winches certificates*
- *Anchor status*
- *Cargo manifold*
- *Cranes and associated gear*
- *Cargo control room*
- *Any other area that the inspection may confirm master-reported status of the following items:*
    - *Main engines*
    - *Rudder and back-up steering systems*
    - *Emergency generator systems*
    - *Emergency fire pump*
    - *Emergency shut down*
    - *Emergency Power and lighting system*
    - *Fire fighting systems (including pumps)*
    - *Emergency signaling systems (general alarms & whistle)*
    - *Lifesaving equipment (life boats, rafts)*
    - *Radars and navigation systems*
    - *Navigation lights*
    - *Internal and external emergency communication systems*
    - *Auxiliary equipment*
    - *Operational Control equipment*
    - *Pre checks as per section 2.2*

If the LNG Carrier is found unacceptable for Terminal berthing or unloading, the Terminal Representative will as soon as practical advise the Master, the Pilot, the Marine Terminal Offshore Installation Manager (OIM), and the Ship's Agent.

3.5 Berthing Schedule

The berthing schedule will be in accordance with the Terminal's procedures and requirements and shall include but not necessarily be limited to:

Acceptability of the LNG Carrier by Government Entity
Berth and storage availability Scheduled Arrival Range

3.6 Berthing/Unberthing Criteria

The following table shows environmental limits (wind and waves) for operations**.

Q-Flex & Moss

Activity	Direction *	Wind (at 10m)	Significant wave height (m)
Berthing	North	20 Knots	1,5 meters
	South	20 Knots	1,5 meters
Unberthing	North	20 Knots	1,5 meters
	South	20 Knots	1,5 meters

* Wind direction is considered to be coming from the North or South

** to be consider influence of current not greater than 0,5 Knots intensity when in conjunction with the above limit.

Conventional LNGc

Activity	Direction *	Wind (at 10m and at least for 1 hour)	Significant wave
Berthing	North	25 Knots	1,5 meters
	South	25 Knots	1,5 meters
Unberthing	From 110-190 degrees (deg)	30 Knots	1,7 meters
	From 300-60 and 190-240 deg	30 Knots	2,0 meters
	From 60-110 and 240-300 deg	30 Knots	2,5 meters

* Wind direction is considered to be coming from the North or South

NOTE:

- Mooring and unmooring operation allowed 24 hr/day
- The visibility for berthing operations shall be more than 500m.
- Terminal is fitted with anemometer and wave measurement equipment that will be used to determine the prevailing wind and sea state conditions.

ALNG is not liable under any circumstances towards the LNG Carrier and/or Third Parties for the use of the information provided.

See: ***Attachment 11.7 Adverse Weather – Terminal Operating Policy***

3.7 Berthing Approach

All maneuvering of LNG Carriers proceeding to and within the Terminal Safety Zone shall be conducted with appropriate care and caution at a speed and in a manner that shall not endanger the safety of any other vessels and/or Terminal.

The berthing principle is to maneuver the LNG Carrier into a position parallel to the berth. With the LNG Carrier stopped in this position, the tugs will then push or pull the LNG Carrier onto the breasting dolphins.

LNG Carriers will generally berth starboard side alongside unless previously discussed and agreed by the Master, the Offshore Installation Manager and the Pilot.

The Terminal is provided with a berthing aid and mooring line tension monitoring system with approach speed indicator panels positioned on the Terminal.

Pilot will board the LNG Carrier with own PPU (Portable Pilot Unit).

A portable PC after docking is carried by Loading Master inside LNGc Control Room in order to displays mooring line tension loads.

The following table provides detail on the approach limit warning settings

Berthing Speed	0-15cm/s	15-19cm/s	20cm/s and over
Approach Angle:	Green: 0-5deg	Yellow: 5-9deg	Red: 9 deg and over

To avoid damage especially but not limited to the fenders, the LNG Carrier shall be landed squarely onto the fenders with a contact speed **not exceeding 15 cm/second.**

The Master and ALNG will agree on the final position in accordance with the LNG Carrier and Terminal cargo handling arrangements.

3.7.1 Status of Anchors

During Pilotage operations and when entering the Safety Zone LNG Carrier personnel must be stationed forward with both anchors ready for immediate use in case of an emergency

On completion of mooring operations and while alongside the Terminal, the anchors must have the compressor bar across and pin in place to prevent accidental release.

4.0 Mooring and Unmooring

4.1 Mooring Arrangements

At the latest 24 (twenty-four) hours prior to first arrival of the LNG Carrier, ALNG will forward a proposal of mooring plan as established during the ship/shore compatibility studies. The mooring plan will include details of the number of mooring lines to be used.

The minimum mooring line requirements for LNG Carriers are indicated in the following table. However, the Master shall use its best endeavor to use all usable mooring lines to increase the number of mooring lines, if he considers it is diligent to do so.

All usable lines must be wire or high-modulus ropes located on winches that can be used effectively to moor the LNG Carrier.

Lines	Forward	Aft
Head / Stern	3	3
Breast	4	4
Springs	2	2
Fire wires	Not more recommended by ISGOTT	Not more recommended by ISGOTT

Note: Suggested configuration to be confirmed by Optimoor study

The arrangement of mooring lines and the sequence of mooring operations that will take place will be agreed upon between the Master, the Pilot and the Terminal Representative.

A maximum of two mooring lines can be handled by each mooring boat at one time.

The LNG Carrier must be moored to the complete satisfaction of the Pilot and Terminal Representative.

The layout for the mooring arrangement of the LNG Berth was developed to suit a wide range of LNG Carrier designs. All mooring hooks are equipped with load sensors and are monitored with a Tension Monitoring system.

- **Conventional LNG'c:**
  Head, Stern and Breast line-mooring lines must be fitted with 22-m 8 strand type polyester mooring tails and springs with 11 mtr polyester/ nylon tails.

- **QFLEX, Moss and Larger Conventionals LNG'c:**
  Polyester/Nylon tails for Head, Stern and Breast lines and exclusive use of Polyester compound material in case 22m tails are used for spring lines. As alternative to Polyester compound, Nylon may still be used for spring lines if 11m tails are deployed for this type of mooring lines.

Certificates and inspection data shall be made available by the Master to the Terminal Representative on request.

Mooring lines attached to the same mooring dolphin or in the same direction shall be of a similar breaking strength and same material.

Synthetic mooring lines shall meet the requirements of OCIMF's publication "*Guidelines on the Use of High-Modulus Synthetic Fiber Ropes as Mooring Lines on Large Carriers*."

4.1.1 Mooring Winches

If the LNG Carrier is fitted with self-tensioning winches **MUST** be placed on the manual brake.

Where spilt drums are fitted, wire-mooring lines must be properly reeled in accordance with OCIMF "*Mooring Equipment Guidelines*."

The LNG Carrier's mooring equipment shall be maintained in good condition to meet the requirement of keeping the LNG Carrier in a proper and safe position alongside the berth at all times.

4.2 Status of Mooring

The safety of the moored LNG Carrier is the Master's responsibility under any circumstances. Without prejudice to Master's liability, for safe cargo handling, the Terminal Representative and jetty operators will check the LNG Carrier's mooring. If the mooring is found to be unsatisfactory, the Terminal Representative will request the Master to correct or adjust the moorings. If the Master does not fulfil the Terminal Representative request in due time or in extreme cases (i.e. safe operation or Terminal integrity is jeopardized), the Terminal Representative may decide to suspend the Unloading. Such check by the Terminal Representative and Jetty operator shall not be interpreted or construed, under any circumstance, as a relief of Master's liability.

It is the Master's responsibility to ensure that the LNG Carrier is securely moored having due regard, among other things, to the forecasted weather conditions. Weather forecasts and prevailing weather and sea conditions are monitored by the LNG Carrier during the LNG Carrier's stay alongside. In case of deteriorating weather appropriate action shall be taken in advance by respectively ALNG and/or the Master, each for their own duties and obligations. Sufficient and competent personnel maintain a strict mooring watch to ensure that proper adjustments are made as required to prevent slack or over-taut lines and movement of LNG Carrier.

Mooring line tension shall be carefully monitored especially when conditions approach the environmental/weather limits. The mean tension should be maintained as close as practical in the range of 10-20 tonnes

Line tension alarm set points	
High Alarm	40 tonnes
High High Alarm	50 tonnes

On activation of a low-mooring-tension alarm the Officer In Charge ("OIC") must immediately rectify the tension of the alarmed mooring line. On activation of the high-mooring-tension alarm the OIC must immediately inform the Terminal Control Room and / or the Terminal Representative.

The Terminal Representative will also continuously assess the weather conditions and make decisions regarding the start, continuation, or end of operations. Such decisions are made in consultation with the Master who keep the right to order the end of any operation.

See: ***Attachment 11.7 Adverse Weather – Terminal operating Policy***.

4.3 Partial Fill Operations for Membrane LNG Carriers

Masters shall conduct a due diligence review and risk assessment prior to the LNG Carrier's first arrival at the Terminal to confirm vessels capability to Unload at the Terminal within the operating parameters set and hind cast data.

Master shall be guided by their Classification Society and or Membrane System Designer on limitations, operations and mitigation measures for operating at the Terminal or if the LNG Carrier has to depart the Terminal in the partial fill condition.

Master shall develop a safe condition departure plan in the event the LNG Carrier is required to depart the Terminal prior to Unloading completion

Such a departure plan shall be required as part of the LNG Carrier pre-approval process at the Terminal.

Possible mitigation measures and considerations for inclusion in the plan include at least:

- *Development of passage plans that considers incident wave directions, wave periods and fill levels*
- *Constraints imposed by sea room to reduce exposure to beam sea conditions*
- *Anchor plans*
- *Internal transfer of cargo between tanks*

The Master and Terminal Representative will review the latest weather forecasts prior to:

- *Berthing; and*
- *Commencement of Unloading; and*
- *Entering the partial fill condition.*

Forecasts must indicate a 24-hour look-ahead period for conventional LNG carrier (36-hour look-ahead for Q-Flex/Larger conventional LNG'C) in order to satisfy themselves that weather conditions will remain favorable to allow safe discharge without interruption and un-berthing of the LNG Carrier.

5.0 Communication

5.1 Verbal Communication

The following applies to verbal communication:

All communication between the LNG Carrier and ALNG shall be in English. ALNG will provide to LNG Carrier a HOT LINE for emergency communication to ALNG.
ALNG provides a PaBx Telephone Line that will enable communication via the ship/shore communication link.
During Unloading communications between LNG Carrier and ALNG are primarily carried out using a ALNG provided UHF radio.

Alternative communication will be via agreed VHF radio Channel.

Communication shall be confirmed on a frequent basis to confirm operation of the systems.

All portable communications systems in use must be certified Intrinsically Safe and must comply fully with any applicable safety requirements.

5.2 Communications Link

The primary system utilized to establish a means of communication between the LNG Carrier and ALNG will be either via:

- *Fiber Optic link; or*
- *Copper cable (Electrical) link.*

A back-up Pneumatic ESD link will also be provided.

Subject to LNG Carrier system characteristics, one primary and the Pneumatic ESD will be fitted and tested in due time prior commencement of operations.

The Fiber Optic is utilized to transmit 4 channels of multiplexed communications between the Terminal and the LNG Carrier, together with Terminal-LNG Carrier and LNG Carrier-Terminal emergency shutdown (ESD) signaling. The copper cable link shall transmit all of the above, but on a dedicated pair of wires per signal.

ALNG personnel and LNG Carrier's personnel will connect the Fiber Optic or electrical link and pneumatic link as soon as the gangway has been set.

The fiber Optic, the Electrical Link and pneumatic link will be tested to ensure that adequate and compatible communication link are in place. After testing only one system, fiber optic or electrical will remain connected.

The Fiber Optic or electrical Link and pneumatic link will remain connected until the gangway is about to be removed prior to the LNG Carrier's departure.

Following the disconnection of the Fiber Optic or electrical link, the LNG Carrier should monitor on VHF [Ch08]

In the event of a failure of the communications system providing the ESD / data link, Unloading shall be suspended until the fiber optic or electrical link is re-established, or until such time that an alternative Communication/ESD system is established and agreed upon between the LNG Carrier and the Offshore Installation Manager and approved by the Maritime Authority.

Prior to any LNG Carrier calling for the first time, ALNG will conduct a Ship Shore Compatibility Survey. During that survey any issue associated with communications will be identified and steps will be taken with the Master to ensure that an adequate and compatible communication link exists between LNG Carrier and ALNG.

Reference: Marine Operations Manual -Chapter 8, "LNGC Operations" for details of the communication systems and pin configurations

5.2.1 Communication Agreement

Attachment 11.5 Communication Agreement shall be completed and signed by the Master during the Pre-transfer Meeting. This attachment defines the communications systems and procedures to be implemented between the LNG Carrier and ALNG.

6.0 Access & Security

6.1 LNG Carrier Access

The Master has the sole jurisdiction on controlling access to LNG Carrier.

ALNG will provide and operate a gangway with a saddle or tripod landing arrangement for location on the LNG Carrier's handrail or deck.

It is the responsibility of the Master to provide safe access that includes at least (but not limited to):

- *The provision of a life-buoy with at least 25 meters of floating lifeline; and*
- *Appropriate illumination; and*
- *Safe access between the termination of the gangway steps and the LNG Carrier main deck*
- *Continual manning and monitoring of the gangway access area; and*
- *Posting of a notice at the gangway advising personnel that only "Authorized personnel may board the LNG Carrier or Terminal".*

The LNG Carrier must be ready to receive the Terminal gangway as soon as the berthing has been completed.

The Master is required to provide assistance on the main deck to enable the proper and safe positioning and removal of the Terminal gangway.

The LNG Carrier and ALNG must ensure that there is a safe transit for personnel between the LNG Carrier and the berth by inspecting, each for their own duties and obligations, the gangway once in position.

Reference: *ALNG Marine Operations Manual Chapter 8, "LNGC Operations" for details of the gangway arrangements Marine Operations Manual Chapter 8, "LNGC Operations" (previously known as Cargo Handling Manual)*

6.2 Security - Berth/LNG Carrier Access Control

No Person other than the Pilots, Customs officials, immigration officer, Ship's Agents, Maritime Authority or Terminal Representative is allowed to board or disembark from an LNG Carrier until clearance has been obtained from the Government Entity having jurisdiction on the Terminal, the LNG Carrier and the Master.

ALNG, among other things:

- *Reserves the right to request that personnel produce personal identification; and*
- *Reserves the right to escort to or from the LNG Carrier any unannounced visitors or persons whose conduct may present a hazard to personnel or Terminal property; and*
- *Reserves the right to board the LNG Carrier at any time to ensure that the Terminal Regulations are being complied with and to stop any and all operations of the LNG Carrier in the event of breach of the Terminal Regulation; and*
- *Has the sole and exclusive right to give access to the Berth area.*

SHIPBOARD PERSONNEL ACCESS TO THE TERMINAL IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM THE ALNG AND WITH ALNG ESCORT

6.3 Emergency Escape

The following pertains to emergency escapes:

A pilot ladder or accommodation ladder shall be rigged or positioned on the outboard side of the LNG Carrier.
The accommodation ladder shall be swung outboard ready for immediate lowering in case an emergency escape is required.

The Terminal Representative will review with the Master during the pre-transfer meeting emergency evacuation arrangements, including reciprocal arrangements in case of need to evacuate the jetty area and remove the LNG Carrier from the berth.

6.4 Security - ISPS

All security-related questions shall be addressed to the Terminal Representative.

The PFSO /DPFSO (Port Facility Security Officer) is authorized to sign the "Declaration of Security" which shall be signed also by the LNG Carrier Security Officer or Master and will concur with the LNG Carrier Security Officer on any additional security measures in case the LNG Carrier and/or Terminal is at a security level other than 1.

See Attachment 11.10 pre-Arrival ISPS Declaration of Security

7.0 Safety

7.1 Introduction

The safety requirements have been developed based on OCIMF (ISGOTT), SIGTTO and other industry standards. The LNG Carrier's personnel are responsible for the safety of the LNG Carrier. LNG Carrier Master and personnel **MUST** take all necessary precautions (whether or not so advised by the Terminal Representative), keeping in mind the hazards of LNG discharge operations , weather conditions and any other circumstances requiring special care or caution.

THE LNG CARRIER'S CREW AND TERMINAL STAFF SHALL IMMEDIATELY:

- **NOTIFY ALNG OR LNG CARRIER CONTROL ROOM OF ANY SITUATION OR CONDITION THAT MAY COMPROMISE THE SAFETY AND/OR INTEGRITY OF THE OPERATION AND**
- **IF REQUIRED, ACTIVATE THE EMERGENCY SHUTDOWN.**

ANY SITUATION THAT COMPROMISES THE OPERATION MUST BE REPORTED TO THE MASTER AND TERMINAL Offshore Installation Manager

7.2 Reduced visibility

When visibility at the Terminal falls below 100 meters as determined by observation of a known fixed distance, the Terminal Offshore Installation Manager (OIM) and Master will jointly review the situation to manage Unloading and provide appropriate safety measures. This may include but is not limited to:

- Placing tugs at closer stand-by; and
- Additional deck and berth personnel for monitoring purposes.

7.3 Emergency Procedures and Response

In addition to LNG Carrier specific emergency procedures, the Master shall follow the following procedures (from the first listed action to the last action) in the event of an emergency situation arising on the LNG Carrier and/or the Terminal:

- *Sounds a continuous blast on the whistle;*
- *Sounds the general alarm;*
- *Stops Unloading and prepares to disconnect loading arms;*
- *Informs the Terminal Representative;*
- *Initiates the LNG Carrier's emergency response procedure;*
- *Informs the Maritime Authority ;*
- *If necessary, request mobilization of the tugs fire-fighting capability (Based on information provided by LNG Carrier, ALNG will inform all relevant functions within ALNG and arranges for the Terminal's fire-fighting capability to be mobilized as required);*
- *Coordinates the fire fighting operations onboard and directing the use of official emergency teams and the Terminal's fire fighting equipment. If the fire cannot be controlled or contained or if the Terminal installation is seriously endangered, the Master and Terminal Offshore Installation Manager shall determine the necessity of removing the LNG Carrier from the berth;*

- *Upon notification of any incident associated with the LNG Carrier, communications will be established between the Offshore Installation Manager, Master and Maritime Authority to confirm and organize an appropriate level of response.*

The following incidents, or combination of incidents, may potentially occur while the LNG Carrier is alongside the Terminal (Non exhaustive list):

- *Fire/Explosion;*
- *Pollution;*
- *Uncontrolled release of LNG or LNG Vapor;*
- *Man Overboard;*
- *LNG Carrier out of position;*

- *LNG Carrier-related incidents, including, mechanical failure affecting cargo operations; accident/medical emergency, power failure and failure of ship's moorings.*

The prime consideration is the safety of personnel, protection of environment and the protection of the integrity of the Terminal and LNG Carrier. Quick appropriate response is essential in these situations and could require towing the LNG Carrier away from the Terminal.

For details on immediate specific actions to be taken:

See Attachment 11.11 Emergency Response Actions:

Subsequent actions to be taken will depend on how the particular incident develops.

Reference: Terminal Emergency Response Plan

7.4 Emergency Mooring Release

The Terminal is fitted with a central emergency remote mooring hook release system.

The remote emergency mooring hook release will only be activated in the case of emergency which places either the LNG Carrier or the Terminal at risk. The emergency mooring hook release may be activated by ALNG from either the Terminal control room or locally at the mooring hook stations.

In case of emergency, following communication between OIM and the Master, the LNG Carrier shall be released from the jetty. Master will maneuver the LNG Carrier to unberth from the Terminal.

7.5 Fire Prevention

Industry standard practices and fire prevention measures shall be complied with in line with the Ship/Shore Safety checklist, including but not limited to the following:

The LNG Carrier's Fire Control and Safety Plan must be posted adjacent to the gangway and accommodation entrance.
The LNG Carrier's water-spray system must be available at all times. The LNG Carrier's fire main system must be pressurized at all times. All fire hoses fitted with jet/spray branches to be available at each cargo tank dome area and the cargo manifold area are to be connected to the LNG Carrier's fire main system, of sufficient length, and ready for immediate use.
Portable Dry Powder fire extinguishers must be conveniently placed near the manifold area in operation.
The LNG Carrier's fixed dry-powder system must be ready for immediate use, with control boxes opened for access.
All external doors, windows and portholes of the LNG Carrier must remain closed. Air conditioning and ventilator intakes likely to draw in air from the cargo area must be closed. However, air conditioning must be maintained on partial re-circulation in order to maintain a positive pressure in the accommodation. Window type air conditioners must be disconnected from their power supply.
The use of LNG Carrier's radio installation is only authorized for receiving purposes. The LNG Carrier's main transmitting aerials must be disconnected and earthed while loading arms are connected to the LNG Carrier.
The use of the LNG Carrier's RADAR during cargo handling operations is prohibited.
Portable and fixed electric and electronic devices and equipment used in the LNG Carrier's hazardous areas must be of an ALNG approved type for such areas (for example EX) and satisfactorily maintained so as to ensure that its original certificate is not jeopardized.
The use of naked lights is strictly prohibited.
Smoking in the berth area is strictly prohibited. Smoking on board the LNG Carrier is only authorized in the designated smoking areas, unless previously agreed upon during the Pre-Transfer Meeting. Smoking and Non-smoking signs shall be displayed on board the LNG Carrier on arrival under the Master's authority.
Hot work including hammering, chipping, and operations involving the use of any power tools are prohibited on board the LNG Carrier, unless the Terminal Offshore Installation Manager provided his written agreement.
The use of mobile telephones and pagers is prohibited on the Terminal and in the LNG Carrier's hazardous areas, unless of an approved type. Non-approved types must be switched off. Mobile telephones and pagers may be used on board the LNG Carrier inside the accommodation area and only with the Master's permission.

In addition, the LNG Carrier shall also maintain a fire watch system, which includes routine monitoring of spaces and areas not continuously maned.

7.6 Emergency Towing Wires

Before arrival at berth, all necessary mooring equipment should be tested and ready for use.
The use of Emergency tow-off pennants is NOT recommended by OCIMF. (ISGOTT 6th edit – Chapter 22.3.1)
An adequate number of trained and competent personnel should be available to handle the mooring and unmooring operation.

7.7 Personal Protective Equipment

It is the Master's responsibility to ensure that his Crew wear appropriate personal protective equipment at all times on the LNG Carrier while it is located in the Terminal Safety area.

Fall protection must be worn in accordance with OCIMF regulations when, identified necessary during SSCS evaluation, handrails are collapsed at the manifold area.

8.0 State of Readiness

8.1 Stability/Draft/Trim

To enable safe cargo handling operations and emergency un-berthing, the Master is required to maintain appropriate draft, trim and list, and to retain sufficient positive stability, propeller and rudder immersion.

The maximum trim permitted is 3.0 meters by the stern.

For custody-transfer measurement, the LNG Carrier shall arrive at the Terminal on even keel and upright.

8.2 Defects and Deficiencies

Any defect or deficiency occurring in the LNG Carrier's manning, propulsion, cargo equipment or other control systems or equipment during the LNG Carrier's stay at the Terminal must be immediately reported to the Terminal Representative.

8.3 Repairs and Maintenance

ANY REPAIR OR MAINTENANCE WORK (EITHER COLD OR HOT) WHICH WOULD IMPAIR THE SAFETY OF THE CARGO HANDLING OPERATIONS OR THE MANEUVERABILITY OF THE LNG CARRIER ARE STRICTLY PROHIBITED UNLESS THE MASTER HAS OBTAINED PRIOR WRITTEN PERMISSION AND A PERMIT TO WORK FROM THE OFFSHORE INSTALLATION MANAGER AND MARITIME AUTHORITY.

Prior written authorization from Off-Shore Installation Manager and Maritime Authority (72 hours before arriving at the Terminal) is required for:

- *Any hot work; or*
- *Enclosed space entry; or*
- *Repairs and maintenance that may temporarily reduce the firefighting, readiness to maneuver or safety systems for the LNG Carrier.*

Such exceptional authorization will not be granted during cargo-handling operations. It will only be considered where unavoidable and not deferrable repair / breakdown occurs and may be conditional on the Master ensuring sufficient tugs to move the LNG Carrier are in place, as a contingency measure if so required.

The Master shall advise ALNG in advance and due time of any intended maintenance planned during the LNG Carrier's stay at the Terminal.

8.4 Crew Preparedness Readiness

At all times sufficient crew must remain ready on board the LNG Carrier to ensure that the correct level of personnel are available to respond to any emergency situation that may occur, including emergency un-berthing.

8.5 Engine Readiness

Boilers, main engines, steering machinery and other equipment essential for maneuvering must be maintained by the Master to enable the LNG Carrier to be un-berthed under her own engine power at short notice in case of emergency.

The LNG Carrier shall not to be operated in the unmanned machinery space (UMS) mode at any time while in the Terminal Safety area or at the berth.

8.6 Engine Safety

TO PREVENT INADVERTENT OPERATION OF THE LNG CARRIER'S MAIN ENGINE WHILE THE LOADING ARMS ARE CONNECTED, ALNG REQUEST THAT THE MAIN TURBINE STEAM INLET V/V IS SECURED IN THE CLOSED POSITION PRIOR TO THE TERMINAL GANGWAY LANDING ON THE LNG CARRIER'S DECK.

ALNG will give formal permission to the LNG Carrier to remove the seal as soon as the loading arms are disconnected and clear of the LNG Carrier.

THE MASTER SHALL ENSURE THAT THE ENGINE IS SUFFICIENTLY WARMED UP AND READY FOR A FULL RANGE OF OPERATIONS BEFORE UNMOORING OPERATIONS ARE COMMENCED.

AUTO SPIN IS TO BE OFF AND THE TURNING GEAR ENGAGED UNTIL LOADING ARMS ARE DISCONNECTED

IT IS THE MASTER'S RESPONSIBILITY TO ADVISE THE PILOT IF THERE IS ANY LIMITATION ON THE RANGE OF USE OF THE LNG CARRIER'S MAIN PROPULSION.

9.0 Pollution Avoidance

9.1 Introduction

The Master is responsible for preventing any kind of pollution. This includes bunkers, LNG, bilge water, dirty ballast, plastics, garbage, or any other matter that results in the pollution of the environment (sea and/or atmosphere). The Master shall ensure that all applicable International Convention for the Prevention of Pollution from Ships (MARPOL) and Laws are fully complied with.

The LNG Carrier must have in place a Shipboard Oil Pollution Emergency Plan (SOPEP) approved by the flag State and have records to substantiate that the personnel onboard have received training in responding to emergencies.

Any fines imposed for such pollution are only and exclusively for the LNG Carrier's account.

9.2 Leaks and Pollution Prevention

The LNG Carrier's crew must maintain a vigilant lookout to prevent and/or detect leaks or spillage during cargo handling operations.

Loading Arm connections to the LNG Carrier will be leak tested with the Terminal nitrogen supply prior to the commencement of Unloading. The pressure used for this leak test will be agreed upon between the LNG Carrier and Terminal Representative and will be dependent upon the maximum expected operating pressure for the planned operation. The maximum allowed pressure in the loading arm will be detailed in the Cargo Handling Agreement, in the form attached and duly signed by the authorized representative of the Master and ALNG.

See: ***Attachment 11.4 Cargo Handling Agreement***

Any unused LNG Carrier cargo and bunker connections must remain tightly closed and blanked.

While alongside the Terminal, the internal transfer of bunkers is not permitted.

Deck scuppers, drain holes, and drip trays on the LNG Carrier within the vicinity of any potential pollution area must be suitably plugged and any accumulated water or effluent drained off as required.

9.2.1 Discharging Material Overboard

It is strictly prohibited to throw any material, papers, waste or goods either solid or fluid overboard.

9.2.2 Gas-Freeing

Gas freeing of any of the LNG Carrier’s tanks to the atmosphere is strictly prohibited in the Terminal area.

9.2.3 Venting

Venting cargo vapor to the atmosphere is not permitted. The Master is required to report in due time all incidents of cargo vapor venting to the Terminal and take all necessary action to prevent accidental venting.

In the event of an emergency situation during which venting occurs notwithstanding Masters diligence cargo handling operations will be immediately stopped.

9.2.4 Bilge Discharge

The discharge of bilge effluents, oil, or any mixture containing oil to sea is strictly prohibited.

Bilge overboard valves are to be visibly locked shut.

9.2.5 Ballast Discharge

Subject to compliance with the Maritime Safety Regulations and Law, only clean segregated ballast can be discharged from the LNG Carrier when at the Terminal.

9.2.6 Excessive Smoke

Excessive smoke from the LNG Carrier's funnel and soot blowing are strictly prohibited.

9.3 Action in event of Pollution

In the event of pollution, immediate notification **MUST** be given by the Master to ALNG and the Terminal Representative who will initiate the Terminal Emergency Response Plan.

This notification shall not relieve the Master of any of his responsibility among which, but not limited to, to activate the LNG Carrier emergency response plans and procedures.

In the event of infringements to pollution prevention rules, ALNG, at its sole discretion, will order the LNG Carrier , for example but not limited to, to stop berthing operation, to stop Unloading, to unberth and/or to leave the ATBA area as the case may be, until appropriate actions are taken by the LNG Carrier to avoid any risk of pollution or further risk of pollution.

9.3.1 LNG Leakage

In the event of LNG leakage (including vapor release), LNG Carrier personnel shall immediately stop Unloading and/or activate the emergency shutdown system, if necessary.

If the gas cloud formed threatens the Terminal/berth area, the remote-controlled water monitors and other water spray systems shall be used by ALNG to control the gas cloud. If necessary, the personnel at the berth will be evacuated.

Operations may resume only when leakage is fixed and the cause of leakage is definitely established.

In the event that LNG leakage occurs on the jetty and/or loading arms, ALNG shall immediately request the LNG Carrier to stop Unloading or will activate the emergency shutdown system, if necessary.

If the LNG leak endangers the LNG Carrier's structure, the water monitors on the Terminal shall be used to assist in preventing sub cooling of non-cryogenic structures of the LNG Carrier.

The LNG Carrier is required to maintain a water curtain at shipside in the loading arm area throughout the periods when the loading arms are connected.

10.0 Cargo Operations

10.1.1 Cargo Handling Agreement

The procedures for the intended cargo handling must be pre-planned, discussed and agreed upon in written in the attached form by the Terminal Representative and the Master prior to the start of operations.

See: ***Attachment 11.4 Cargo Handling Agreement***

10.1.2 Control and Supervision of Operations

The LNG Carrier Cargo Control Room is to be manned at all times and under the control of a competent Officer on behalf of the Master.

The person(s) so appointed shall maintain communications with ALNG.

An efficient deck watch is to be maintained so that the mooring lines, tank deck, gangway and manifold are under constant observation.

10.1.3 Operational unloading limits while LNGc is at berth

In the following table were represented the operative safety working range during the discharging operation

LNG Carriers operative limits inside Terminal Regulation 2023			
Activity	**Direction of wave**	**Significant wave height (m) Conventional LNGc**	**Significant wave height (m) Moss, Q-Flex LNGc**
Stop Cargo Transfer and Disconnect Loading Arms	From 110-190 degrees (deg) From 300-60 and 190-240 deg From 60-110 and 240-300 deg	**1.5** m **1.7** m **2.0** m	**1.5** m **1,7** m **1.7** m

Activity	**Direction of wind**	**Wind speed (Knts) Conventional LNGc**	**Wind Speed (Knts) Moss & Q-Flex LNGc**
Stop Cargo Transfer and Disconnect Loading Arms	1 hr. from any direction	**28** knots	**25** knots

10.1.4 Ship/Shore Pre-Transfer Meeting

Before the start of transfer operations, a pre-transfer meeting will be held onboard the LNG Carrier, in compliance with the Maritime Safety Regulations and Marine Operations Manual Chapter 8, "LNGC Operations" (previously known as Cargo Handling Manual).

The Terminal Representative will attend this meeting.

The designated responsible person(s) appointed by the Master to supervise the cargo handling operations on board the LNG Carrier shall attend this meeting representing the LNG Carrier.

The following forms (provided as attachments to this document) will be provided by ALNG to the LNG Carrier. These forms will be discussed, completed and agreed upon by LNG Carrier and ALNG during pre-transfer meeting:

ATTACHMENTS	IN AGREEMENT WITH	REMARKS
ATTACHMENT 11.3 SHIP/SHORE SAFETY CHECK-LIST	LNG Carrier/Terminal	
ATTACHMENT 11.4 CARGO HANDLING AGREEMENT	LNG Carrier/Terminal	
ATTACHMENT 11.12 MASTERS LETTER OF ACKNOWLEDGEMENT	LNG Carrier/Terminal	
ATTACHMENT 11.5 COMMUNICATION AGREEMENT	LNG Carrier/Terminal	
ATTACHMENT 11.6 EMERGENCY CONTACTS	LNG Carrier/Terminal	
ATTACHMENT 11.10 ISPS DECLARATION OF SECURITY	LNG Carrier/Terminal	

The purpose of this meeting is to ensure that all aspects of Unloading and associated activities are clearly understood and documented using the Terminal Pre-Transfer Meeting Agenda

The agenda for this meeting shall include the following minimum items:

- Confirmation of pre-arrival safety checks
- Status of cargo tanks on arrival (temperature and pressure).
- Custody transfer and CTMS status
- Connection and disconnection of Unloading Arms.
- Testing of ESD
- Unloading Arms cool-down procedure.
- Unloading procedures and schedule,
- LNG Carrier cargo Heel requirements and stripping requirements
- Partial fill requirements and duration cargo tanks will be in this condition
- Ballasting.
- Weather Forecast.
- Communications with ALNG.
- Work Permit requirements
- Stand-by Tugs.
- Emergency Procedures, including unmooring ops. and evacuation plans
- Emergency Shutdown
- Security Arrangements.
- No Smoking Areas

10.2 ESD

To minimize the potential hazard of an LNG release, the LNG transfer system is protected by two emergency shutdown steps: ESD-1 and ESD-2.

ESD-1

ESD 1 allows the rapid shutdown of the LNG Carrier's transfer pumps operation during an emergency and closure of the Terminal and LNG Carrier shutdown valves.

ESD-2

The second of two emergency shutdown steps minimizing the potential hazard of an LNG release, ESD-2 automatically uncouples the loading arms when the arms are overextended. This emergency situation (e.g. Potential loading arm failure) generally occurs due to the LNG Carrier moving outside the design envelope of the loading arms.

Reference: For more details, see Marine Operations Manual Chapter 8, "LNGC Operations" (previously known as Cargo Handling Manual).

10.3 Emergency Shutdown

Justifications for activating an Emergency Shutdown include any emergency situation such as, but not limited to:

- fire,
- explosion,
- LNG leakage or spillage,
- failure of strategic equipment, or
- any other event likely to endanger the Terminal, LNG Carrier, or their equipment or personnel.

The Terminal Representative may direct the LNG Carrier to stop cargo operations and to prepare for emergency loading arm and LNG Carrier release.

The goal of the Cargo Emergency Stop system is to prevent or minimize damage to personnel, property, and the environment.

After the incident, a joint investigation of the incident and a survey of the LNG Carrier may be carried out by the Master, the Offshore Installation Manager, Maritime Authority and other ALNG Personnel.

10.4 Resumption of Operations

When the emergency is over and the situation is secure, the initiator of the Cargo Emergency Shutdown shall notify all stations accordingly and operations must be resumed.

Details of the occurrence are to be entered on the Emergency Shutdown Report form, and the cause is to be investigated.

The OIM may require, at its own discretion, he LNG Carrier to leave the Terminal.

See***: ATTACHMENT 11.8 Emergency Shutdown Report***

OPERATIONS MAY NOT RESUME UNTIL IT IS DETERMINED THAT IT IS SAFE TO DO SO. OPERATIONS MAY RESUME ONLY WITH OFFSHORE INSTALLATION MANAGER AND LNG CARRIER MASTER AGREEMENT AS DOCUMENTED ON THE EMERGENCY SHUTDOWN REPORT.

10.5 Liquid and Vapor Arms Connection

Unloading will normally be carried out through three liquid-loading arms on the berth, unless previously agreed upon between the LNG Carrier and the Terminal Representative during the Pre-Transfer Meeting.

The LNG Carrier shall provide personnel to assist in the preparation of the loading arm connection under the coordination of the Terminal Representative. The connection assistance system (spool

pieces) is not anymore used and will be placed on the LNG Carrier prior to berthing only in exceptional cases evaluated in SSCS *(Ref: Marine Operations Manual Chapter 8, "LNGC Operations")*

The Master is required to ensure that the LNG Carrier's manifolds are ready for connection immediately after completion of berthing and that the LNG Carrier's manifold water curtain has been started **before** the Terminal maneuvers the arms on board.

If requested by ALNG, following the response of SSCS, to allow use of the cable-guided connection system and avoid interference with the Loading Arm, if the LNG Carrier Manifold handrail needs to be lowered or removed prior to loading arm connection and disconnection, in this case all personnel involved in such mentioned operations must worn a Anti falling devices secured to a solid fixed point. On completion of connection the handrail must be re-installed for offloading operations.

Liquid-loading arms and the vapor-return arm will be connected by the Terminal upon the LNG Carrier's confirmation of readiness, and after ALNG is satisfied that the LNG Carrier is in compliance with the requirements of the Ship / Shore Safety Checklist.

After connection, ALNG will purge the liquid and vapor arms with nitrogen (O_2 Content < 2% By Vol).

Reference: For more details, see Marine Operations Manual Chapter 8, "LNGC Operations"

10.6 Cargo Measurements/CTMS

The Master shall ensure that the cargo measurements are conducted in compliance with the Regassification Code requirements.

The LNG Carrier's Custody Transfer Measurement system shall be in compliance with the requirements of the Marine Operations Manual, including:

- Calibration of LNG tanks
- Tank gauge approval and accuracy
- Liquid level gauging device accuracy, both primary and auxiliary systems
- Temperature gauging devices
- Pressure gauging devices

The Terminal Representative will be present and witness LNG measurement at the start and end of transfer operations.

10.7 Unloading Rates

The Master and the Terminal Representative will agree to the maximum transfer rate at the pre-transfer meeting. The agreed upon transfer rate will be noted on the cargo handling agreement. The Master and ALNG will monitor the transfer rates throughout all stages of cargo operations.

ALNG can request a reduction in transfer rates if required before changing tanks or at any time during the transfer operations. The agreed upon normal standby notice period will be observed for normal rate reduction requests.

10.8 Maximum LNG Cargo Tank Vapor Pressure

The Master shall make all reasonable efforts to limit the vapor pressure in the cargo tanks to 140 mbarg.

The LNG cargo will not be considered to be Off-Spec solely due to the cargo tank vapor pressure being above 140 mbarg; however, ALNG may, at its sole option:

(i) declare the LNG Carrier to be not ready for unloading; or

(ii) stop the discharge of LNG until the vapor pressure is reduced below this limit, or

(iii) reduce the rate of unloading of the LNG Carrier.

10.9 Liquid and Vapor Arms Disconnection

The liquid and vapor arms will be drained to be free of LNG and purged with nitrogen (Hydrocarbon Content < 1% By Vol) by ALNG prior to disconnection.

The Master shall ensure that the LNG Carrier's manifolds and cargo lines are ready for draining, purging, and disconnecting operations.

THE MASTER SHALL ENSURE THAT STEPS ARE TAKEN TO PREVENT INADVERTENT OPERATION OF LNG CARRIER ESD/MANIFOLD VALVES THAT MAY RESULT IN A RELEASE OF LNG OR VAPOR THROUGH THE MANIFOLD AT THE TIME OF DISCONNECTION.

The liquid and vapor arms will be disconnected and stowed one by one by ALNG. The Master is required to provide assistance from his crew on the LNG Carrier's manifold for communication purposes with ALNG during arm draining/purging and disconnection.

Loading arms can be connected using targeting system with handrail in upright position.

LNG Carrier personnel shall remain at a safe distance from the loading arms while they are being maneuvered by ALNG.

10.10 Ship / Shore Post-Transfer Meeting

A post-transfer meeting will be held on the LNG Carrier, in compliance with the Maritime Safety Regulations and Marine Operations Manual Chapter 8, "LNGC Operations" (previously known as Cargo Handling Manual).

The Terminal Representative representing ALNG and the designated responsible person(s) appointed by the Master to supervise the cargo handling operations on board the LNG Carrier representing the LNG Carrier shall both attend the post transfer meeting.

During this meeting the Terminal Representative will discuss with the Master any observations of concern or issue that should be addressed by the LNG Carrier prior its return to the Terminal.

11. Appendix

Attachment 11.1 Conditions of Use

1- Acceptance of LNG Carrier
All LNG Carriers calling at the Terminal are first subject to SSCS acceptance by ALNG and must satisfy among others:

- *Marine Operations Manual (Chapter 10 – LNGC Vetting and Acceptance)*
- *Berth compatibility requirements*
- *Terminal Insurance liability requirements*

Combinations of weather and current conditions, size, trim, and handling qualities can also affect ALNG's decision to allow an LNG Carrier to berth at the Terminal. Should an LNG Carrier be rejected or delayed by ALNG for any reason, ALNG will supply the Master and the Ships Agent with written reasons for the rejection or delay.

The Terminal Representative is authorized by ALNG to confirm the continued eligibility of an LNG Carrier to remain at the Terminal.

ALNG reserves the right at all times to direct an LNG Carrier to leave the Terminal if the Terminal Representative or OIM determines, at his discretion that the presence of the LNG Carrier poses any threat to the Terminal, to safety, or to the environment. In such cases the Master will be consulted.

2- Master's Responsibility
Masters of LNG Carriers calling at the Terminal are solely responsible on behalf of the owners or charterers for the safe navigation, and operation of their LNG Carriers.

Nothing contained in these Terminal Regulations relieves Masters of their responsibility from taking precautions and behave diligently to prevent among others:

- *Fire;*
- *LNG release;*
- *Tank over pressurization or vacuum;*
- *Environmental pollution;*
- *Damage to the Mooring System;*
- *Damage to the Loading Arm System;*
- *Damage to the Terminal;*
- *Incident especially during the period that the handrail are collapsed (if lowered); therefore, no person shall cross the seaside area and Master shall make safe the open area of the handrails by temporary lashing. In case of man overboard from handrails or loading arms, recovering responsibility is upon Master. LNG Carrier's personnel must use safety harness in addition to the life jacket when lowering/raising the handrail*

The Master remains at all times wholly and fully responsible for his or her LNG Carrier and for its officers and crew.

3- Government Officials

Italian government officials may be included in the boarding party. These may include:

- *Customs Officer; and*
- *Immigration Officer; and*
- *Maritime Authority Representative.*

The Ship's Agent is responsible for advising the Master of the number of personnel expected to board and if they will be required to stay onboard throughout Unloading.

4- Agency.

The LNG Carrier Owner or Master must have arranged local agency services. The representative of the agency may board with the boarding party. ALNG and its personnel do not perform any LNG Carrier agency functions.

5- Anti-Pollution Regulation

To prevent any kind of pollution it is the responsibility of the Master to ensure that his LNG Carrier complies with all applicable Laws aimed at preventing pollution. This includes cargo, bunkers, bilge water, dirty ballast, plastics, garbage, or any other matter that results in the pollution of the sea or atmosphere. The Master must ensure that all applicable International Convention for the Prevention of Pollution from Ships (MARPOL) and Laws are complied with.

LNG Carriers must have in place a Shipboard Oil Pollution Emergency Plan (SOPEP) approved by flag State and have records to substantiate that the personnel onboard received training in responding to emergency situations.

Any fine imposed by any Government Entity for any pollution caused by the LNG Carrier or for which the LNG Carrier or its Owner are liable under any applicable law shall be for the LNG Carrier's Owner's account.

6- Terminal hours of operation

LNG Carriers are discharged at any hour, weather and other circumstances permitting, at the full discretion of ALNG and the Harbour Master.

Mooring and unmooring operations are conducted on a 24-hour basis, always consistent with favorable wind and sea conditions, visibility, and availability of Pilot, tugs and line handling crews.

7- Marine Terminal Closure

Any decision regarding the opening and closing of the Terminal is made solely at the sole discretion of ALNG. ALNG will provide the Master with a written notice of the times during which the Terminal is closed.

LNG Carriers required to leave the Terminal area during periods of closure and must keep in contact with the Terminal via VHF so that they are readily available when the Terminal reopens.

Closure could be caused by adverse weather conditions or any other operational reasons that prevent, or may prevent, an LNG Carrier from mooring and/or remaining safely moored.

8- Pilotage

All berthing, mooring, and unmooring operations within the Terminal areas shall be conducted with a Pilot onboard, except in emergency un-berthing situations and when the Pilot is not available for a duly motivated reason.

The Master at all times remains in command of her LNG Carrier and is fully responsible for the safety of life, the LNG Carrier, the environment, and for third-party property damages.

The Pilot and Terminal personnel remaining on the LNG Carrier during Unloading must be provided with food and accommodation of the standard usually provided for the LNG Carrier's officers.

9- Surveyors and Government Representatives

The LNG Carrier Officer in Charge (OIC) must inform any independent cargo surveyor or Government Entity representative appointed to inspect the cargo on board that LNG Carrier of cargo information including stowage, load-port information, LNG quantities and specifications.

The OIC must ensure that surveyors and Government Entity representatives are properly accommodated and that all reasonable requests are satisfied.

If the OIC has any doubts, or if a problem or misunderstanding occurs, the OIC must inform the Terminal Representative who will endeavor to resolve any situation to the satisfaction of all concerned.

10- Drugs and Alcohol

As part of the pre-qualification screening requirements that allows the LNG Carrier to operate at the Terminal, the LNGc Company must have in force a drug and alcohol abuse policy. The drug and alcohol Company policy must be, or can be, more restrictive than the standards specified in the Oil Companies International Marine Forum Guidelines for the Control of Drugs and Alcohol Onboard Ship.

The Master must ensure that no drugs (other than those in the medical locker) are onboard and that no alcohol is used or is available for use while the LNG Carrier is present in the Terminal Safety area.

All personnel onboard the LNG Carrier located within the Terminal area must comply with the Drug and Alcohol Company Policy, a copy of which must be posted onboard in order to advertise it.

LNG Carrier personnel are reminded that while approaching and leaving the Terminal all personnel must have a zero blood alcohol level.

11- Visitors to the Terminal or LNG Carrier

All visitors to the Terminal or LNG Carrier, including ALNG's customers representatives, independent surveyors and Ship's Agents will comply with the Terminal procedures and policies, including Safety, and Drug and Alcohol policies.

12 - Removal of Wrecks

For removal of wreck purpose, ALNG will order the LNG Carrier in writing to remove the wreck, the LNG Carrier or part thereof that becomes an obstruction to the performance of the Terminal in any part of the Restricted areas and Safety Zones (as defined by art. 2.2 of the Terminal Regulation) or in the approaches to the Restricted areas and Safety Zones ("Wreck"). If the Wreck is not removed within 24 (twenty-four) hours from the above request, ALNG is empowered to act on behalf of the Master. In this capacity, ALNG may take any steps deemed necessary to remove the Wreck even without further notification to the Master.

All expenses for such removal will ~~must~~ be borne by the Owner(s) of the LNG Carrier causing the obstruction. ALNG is entitled to full reimbursement by the Owner(s) of the LNG Carrier for any reasonable expenses.

13 - Provision of services

13.1 - Compliance with Llaws : All services, facilities and assistance provided by or on behalf of ALNG, its parent companies, subsidiaries, or affiliates, or its or their servants, agents, or contractors, their parent companies, subsidiaries, or affiliates, or its or their servants, agents, or contractors whether or not any charge is made by ALNG therefore, are provided subject to all Laws.

13.2 - ALNG's representative on vessel : The services of the Terminal Representative are provided with the express understanding and condition that when any Terminal Representative furnished by ALNG goes on board a LNG Carrier for the purpose of assisting such LNG Carrier, he or she becomes for such purposes the servant of the Owners or Charterers of the vessel; and ALNG shall in no way be liable for any damage or personal injury including death of any nature whatsoever, incurred by any person whomsoever, in any way connected with, contributed by, or resulting from the advice or assistance given or for any action taken by such Terminal Representative, whether negligent or otherwise, while on board or in the vicinity of such assisted vessel.

13.3 - LNG Carrier Navigation : except gross negligence or willful misconduct, neither ALNG its servants, co-venturers, agents, contractors in whatever capacity it may be acting shall not be in any way whatsoever responsible for or liable for any contribution with respect to any loss, damage, or delay, from whatsoever cause, or arising whether directly or indirectly in consequence of any assistance, advice, or instructions whatsoever given or tendered in respect of any vessel, whether by way of the provision of navigation facilities, including berthing aids, or otherwise howsoever. In all circumstances the Master of any LNG Carrier shall remain solely responsible on behalf of his or her owners for safety and proper navigation of his or her LNG Carrier.

14 - Liabilities and indemnities

14.1 While ALNG shall exercise reasonable care to ensure that the mooring, premises, facilities, property, gear, craft, and equipment provided by ALNG are safe and suitable for vessels permitted or invited to use them, no guarantee, express or implied, of such safety and suitability is given by ALNG that such mooring, premises, facilities, property, gear, craft, and equipment are devoid of defects or are fit for the service or use to which it is put, and every vessel shall be and remain at the sole risk of the Owners and Master thereof .

14.2 ALNG, shall not be held responsible (or liable for any contribution) with respect to any loss, damage, or delays whatsoever that may be sustained by or occur to any vessel or to its Owners or its crew or cargo or for any part thereof (whether such cargo is on board or in the course of discharge) by whomsoever and by whatsoever cause such as loss, injury, damage, or delay is occasioned, unless it is caused in whole by the negligence of ALNG

14.3 If in connection with or by reason of the use by any LNG Carrier of any berth, or any other part of the Terminal or other ALNG premises, or of any gear or equipment provided by or on behalf of ALNG, or of any craft, or of any other facilities or property, of any sort whatsoever, belonging to or provided by on behalf of ALNG, any damage or injury is caused to such mooring, premises, gear or equipment, craft, or other facility or property, or any third party, or any vessel its owners and crew, from whatsoever cause such damage may arise, as a result of any negligence or fault on the part of the LNG carrier and/or its Master and/or its crew, in any such event the vessel and the LNG Carrier shall hold ALNG harmless from and indemnified against all such damage and injury and against loss sustained by ALNG consequent thereon, unless such damage has been caused in whole by the negligence of ALNG.

14.4 The LNG Carrier shall hold ALNG harmless from and indemnified against all and any action, liabilities, claims, damages, cost, awards, and expenses arising whether directly or indirectly out of any loss, damage, personal injury, including death or delay of whatsoever nature occasioned to any third party or any vessel, its Owners and crew, including the LNG Carrier and owners and crew, caused or contributed to by any negligence or fault on the part of the LNG Carrier or any part thereof or by any substance or material leaking or escaping therefrom or by any negligence or fault on the part of the Master or crew or by any other servant or agent of the Owners unless such loss, damage personal injury, including death or delay has been caused in whole by the negligence of ALNG.

14.5 Neither party shall be responsible for indirect or consequential damages, including but not limited to the loss of profit

15 - Limitation of Liability

15.1 Each party shall be liable with respect to the other party for any claim under article 14, for a sum not exceeding the amount of 150.000.000,00 (one-hundred-fifty-million) USD per event. It is expressly agreed that this is the maximum liability of each party to the other party under article 14

15.2 For any claim other than those specified in paragraph 15.1, including but not limited to those under articles 12 and 18, the LNG carrier and/or their Owners and/or ALNG as the case may be, shall not be deprived of any right they may have to limit their liability in accordance with any applicable law for the time being in force.

16 - Force Majeure

1)- Meaning of Force Majeure
Force Majeure means any event or circumstance beyond the reasonable control of the Party claiming such Force Majeure, which could not be prevented by due care and reasonable expense, which has the effect of making performance by such Party of its obligations under the Terminal Regulation, in whole or in part, impossible and/or unlawful ("**Force Majeure**" or "**Force Majeure Event**").

2)- List of Force Majeure Events
Force Majeure shall include, but not limited to the following events:

(a) war (whether declared or undeclared), civil war, acts of terrorism, riot, civil disturbance, blockade, insurrection;
(b) acts of God, explosion, fire, flood, atmospheric disturbance, lightning, storm, typhoon, tornado, earthquake, landslide, soil erosion, subsidence, washout ,health epidemic or health pandemic;
(c) any change in a Regulation or other applicable laws, regulations, administrative or judicial provisions or such like, or coming into effect of a new regulation or other applicable laws, regulations, administrative or judicial provisions or such like, excluding any that concern tax;
(d) any refusal, revocation, cancellation, or non-renewal of any authorization, permit, license and/or concession required by the Affected Party to perform its obligations under this Terminal regulation;
(e) loss of, damage to, or any failure of all or part of the ALNG or of the Grid;
(f) strikes including any national strike (*sciopero generale*), gas or energy sector strike (*sciopero di categoria*), or company strike (*sciopero aziendale*); and
(g) any condition or situation which presents an imminent threat of loss or damage to any property, or of danger to the life or health of any person.

- Relief for Force Majeure

Should a Force Majeure Event occur, the Party affected by such Force Majeure Event (the "Affected Party") shall be relieved of its obligations under the Terminal regulation for as long as and to the extent that the performance of its obligations is rendered impossible and/or unlawful by such Force Majeure Event, and the other Party shall be relieved of its corresponding obligations under Terminal regulation to the same extent.

3)- Action to be taken on Force Majeure

Should any Force Majeure Event occur, the Affected Party shall:

(a) promptly give notice to the other Party, by stating (i) the date, hour and place where the claimed Force Majeure Event has occurred (ii) a detailed description of the claimed Force Majeure Event (iii) the effects of the claimed Force Majeure Event; and (iv) the program that the Affected Party intends to implement to remedy the Force Majeure Event and resume normal performance of its obligations under the Terminal Regulation; and
(b) in addition to paragraphs (i) through (iv) above, where the Affected Party is ALNG: (aa) the estimated period during which performance of the service will be suspended or reduced due to the Force Majeure Event and (bb) the service that the ALNG reasonably expects will not be performed or will only be partially performed during the period for which the Force Majeure Event and its effects are estimated to last; and
(c) upon the expiry of each consecutive thirty (30) Day period following service of the notice pursuant to paragraph (a) above, update the information described in paragraph (a) above by notifying the other Party the following: (i) the developments in the situation; (ii) the actions being taken to remedy the Force Majeure Event and its effects; and (iii) the date on which it is reasonably expected that such Force Majeure Event and its effects will end;
(d) use all reasonable endeavours (including the incurrence of reasonable expenditure) to overcome the Force Majeure Event and minimise where possible its effects on the performance of such Affected Party's obligations;
(e) allow or procure the other Party, its employees, contractors, agents and/or other third party representatives (each acting for or on behalf of such other Party and with its specific approval), upon giving reasonable prior notice and at such other Party's sole risk and expense, to have access to the Terminal and/or any other place where the Force Majeure Event has occurred (to the extent that it is within the reasonable control of the Affected Party to do so), in order to check and assess the duration and effects of the Force Majeure Event, provided that such access would not present a danger to the life or health of any person; and
(f) promptly give written notice to the other Party when the Affected Party is again able to perform its obligations under the relevant Capacity Agreements and shall thereupon promptly resume performance of its obligations thereunder.

17- Changes to the Terminal Regulation: ALNG may change the terms of these Terminal Regulations -by giving the LNG carrier Owner at least three months' written notice by registered letter or e-mail. Such change applies as of the date ALNG provides for ~~specifies~~ in the notice. It is understood and agreed that the LNG carrier Owner consents to any such change if he does not notify ALNG in writing, at the latest 15 (fifteen) days prior to the effective date provided for in ALNG's written notice, that he disagrees with the change. If the owner of LNG Carrier disagrees with the change ALNG has the option to withdraw from the Terminal regulation with a 15 (fifteen) days notice without any penalty or liability to the owner LNG Carrier or any third party. In this last case the LNG Carrier has no more access to the Terminal and/or the Restricted areas and Safety Zones.

18- Pollution

LNG Carriers shall be member of the International Tanker Owners Pollution Federation Limited (ITOPF) and declares he knows its guidelines. For any oil pollution caused by the LNG Carrier, its Master, or crew, the LNG Carrier and its Owners shall protect, defend, indemnify, and hold harmless ALNG from and against any loss, damage, liability, suit, claim, or expense arising therefrom.

19- Parties and related parties.

It is hereby expressly agreed that no servant or agent of ALNG shall be under any liability whatsoever for any loss, damage, or delay of whatsoever kind arising or resulting directly or indirectly from any

act of neglect or default on its part while acting in the course of or in connection with its employment, and without prejudice to the generality of the foregoing provisions in this clause, every exemption, limitation, condition, and liberty herein contained and every right, exemption from liability, defense, and immunity of whatsoever nature applicable to ALNG or to which ALNG is entitled hereunder shall also be available and shall extend to protect every such servant or agent of ALNG acting as aforesaid, and for the purpose of all the foregoing provisions of this clause ALNG is or shall be deemed to be acting as agent or trustee on behalf of and for the benefit of all persons who are or might be its servants or agents from time to time, and all such persons shall to this extent be or be deemed to be parties to this agreement.

20- Governing Law and Jurisdiction

The Terminal regulations, including these conditions of use, are governed by Italian law and any dispute arising out or in connection with the Terminal Regulations will be exclusively referred to the court of Milan.

21. Termination

21.1 – Notice

Each Party shall have the right at any time to give to the other Party notice of termination of this agreement on Terminal Regulation through registered letter or registered email. Such notice shall be sent with at least 30 (thirty) days notice and is effective upon receipt.

21.2 Effect of Termination

From the termination the LNG Carrier has no right to access the Safety Area and/or the Terminal. Termination of this agreement on Terminal Regulations, howsoever caused, shall be without prejudice to any rights or remedies that may have accrued prior to the time of such termination, and any provisions of this agreement necessary for the exercise of any such accrued rights or remedies shall survive expiry or termination of this agreement for such period as so required.

22. Waiver of Immunity.

Each Party acknowledges and agrees that this agreement constitute a transaction and that it is not entitled to plead sovereign immunity for any purpose whatsoever, including any right to plead sovereign immunity in respect of any action to refer a matter to dispute resolution.

Attachment 11.2 Pre-Arrival Information

1	**LNG CARRIER NAME AND CALL SIGN**
	LNG Carrier Owner:
2	PORT OF REGISTRY:
3	NAME OF MASTER:
4	GRT/NRT:
5	ARRIVAL DISPLACEMENT:
6	SUMMER DEADWEIGHT (METRIC TONNES)
7	LENGTH OVERALL (m) :
8	DRAFT FORE AND AFT ON ARRIVAL (m):
9	DRAFT FORE AND AFT ON DEPARTURE (m):
10	ADVISE ANY LNG CARRIER DEFECT AFFECTING CARGO OPERATIONS OR MANEUVERING / MOORING ABILITY.
11	CONFIRM P&I CLUB NAME AND VALIDITY:
12	CONFIRM POLLUTION COVER
13	LAST 3 PORTS OF CALL
14	IS GAS DETECTION SYSTEM FULLY OPERATIONAL?
15	DOES LNG CARRIER HAVE A FULLY OPERATIONAL IG SYSTEM?
16	ARE VOID SPACES GAS FREE?
17	ARE SMOKE/FIRE DETECTION AND FIXED FIRE EXTINGUISHING SYSTEMS FULLY OPERATIONAL?
18	AMOUNT AND GRADE OF CARGO FOR DISCHARGE:
19	SIZE, RATING AND STANDARDS OF CARGO MANIFOLD CONNECTION?
20	DISTANCE OF CENTER MANIFOLD FROM THE BOW AND DISTANCE OF SPRINGLINE FAIRLEADS FROM THE CENTER OF THE MANIFOLDS
21	HEIGHT OF MANIFOLD ABOVE THE KEEL:
22	DISTANCE BETWEEN MANIFOLD FLANGES CENTERS:
23	DISTANCE OF MANIFOLD FROM SHIP'S SIDE:
24	DISTANCE FROM MANIFOLD FACE TO FIRST FULL RESTRAINING BRACKET:
25	MAXIMUM UNLOADING RATE:
26	ANTICIPATED UNLOADING TIME:
27	CONFIRM CARGO TRANSFER EMERGENCY STOPS FULLY OPERATIONAL AND DATE OF LAST TEST

28	CONFIRM TANK HIGH LEVEL AND PRESSURE ALARMS OPERATIONAL:		
29	CONFIRM THAT REMOTELY OPERATED MANIFOLD VALVES HAVE BEEN OPERATED THROUGH A COMPLETE OPEN/CLOSED CYCLE, ENSURE CORRECT FUNCTIONING AND ADVISE VALVE TYPE AND ACTUAL CLOSING TIME.		
30	MAIN ENGINE TESTED ASTERN, BOW THRUSTER TESTED BEFORE PILOT BOARDS		
31	DOES LNG CARRIER COMPLY WITH ISM CODE?		
32	VALIDITY OF ISM DOC/SMC AND ISSUING AUTHORITY		
33	COPY OF UP TO DATE "SIRE" OFFICER MATRIX		
34	CONFIRM RECIEPT OF TERMINAL REGULATIONS AND PORT REGULATIONS		
35	LNG CARRIER'S INMARSAT No.	TEL No.	FAX No.
36	LNG CARRIERS AGENT AND CONTACT DETAILS		
37	LNG CARRIER OPERATOR EMERGENCY CONTACT DETAILS		

Attachment 11.3 Ship/Shore Safety Check-List

ISGOTT Checks pre-arrival Ship/Shore Safety Checklist

Date and time:

Port and berth: ADRIATIC LNG - Porto Levante (Rovigo-Italy)

Tanker:

Terminal: ADRIATIC LNG

Product to be transferred: LNG

Part 1A. Tanker: checks pre-arrival

Item	Check	Status	Remarks
1	Pre-arrival information is exchanged (6.5, 21.2)	□ Yes	
2	International shore fire connection is available (5.5, 19.4.3.1)	□ Yes	
3	Transfer hoses are of suitable construction (18.2)	□ Yes	
4	Terminal information booklet reviewed (15.2.2)	□ Yes	
5	Pre-berthing information is exchanged (21.3, 22.3)	□ Yes	
6	Pressure/vacuum valves and/or high velocity vents are operational (11.1.8)	□ Yes	
7	Fixed and portable oxygen analysers are operational (2.4)	□ Yes	

Part 1B. Ship checks pre-arrival if using an inert gas system: N/A FOR LNG VESSEL

Part 2. Terminal: checks pre-arrival

12	Pre-arrival information is exchanged (6.5, 21.2)	□ Yes	
13	International shore fire connection is available (5.5, 19.4.3.1, 19.4.3.5)	□ Yes	
14	Transfer equipment is of suitable construction (18.1, 18.2)	□ Yes	
15	Terminal information booklet transmitted to tanker (15.2.2)	□ Yes	
16	Pre-berthing information is exchanged (21.3, 22.3)	□ Yes	

ISGOTT Checks after mooring Ship/Shore Safety Checklist

Part 3. Tanker: checks after mooring

17	Fendering is effective (22.4.1)	□ Yes	
18	Mooring arrangement is effective (22.2, 22.4.3)	□ Yes	AS PER MOORING PLAN
19	Access to and from the tanker is safe (16.4)	□ Yes	
20	Scuppers and savealls are plugged (23.7.4, 23.7.5)	□ Yes	
21	Cargo system sea connections and overboard discharges are secured (23.7.3)	□ Yes	

22	Very high frequency and ultra high frequency transceivers are set to low power mode (4.11.6, 4.13.2.2)	□ Yes	
23	External openings in superstructures are controlled (23.1)	□ Yes	
24	Pumproom ventilation is effective (10.12.2)	□ Yes	
25	Medium frequency/high frequency radio antennae are isolated (4.11.4, 4.13.2.1)	□ Yes	
26	Accommodation spaces are at positive pressure (23.2)	□ Yes	
27	Fire control plans are readily available (9.11.2.5)	□ Yes	

Part 4. Terminal: checks after mooring

28	Fendering is effective (22.4.1)	□ Yes	
29	Tanker is moored according to the terminal mooring plan (22.2, 22.4.3)	□ Yes	AS PER MOORING PLAN
30	Access to and from the terminal is safe (16.4)	□ Yes	TERMINAL GANGWAY
31	Spill containment and sumps are secure (18.4.2, 18.4.3, 23.7.4, 23.7.5)	□ Yes	

ISGOTT Checks pre-transfer Ship/Shore Safety Checklist

Date and time:

Port and berth: ADRIATIC LNG - Porto Levante (Rovigo-Italy)

Tanker:

Terminal: ADRIATIC LNG

Product to be transferred: LNG

Part 5A. Tanker and terminal: pre-transfer conference

Item	Check	Tanker status	Terminal status	Remarks
32	Tanker is ready to move at agreed notice period (9.11, 21.7.1.1, 22.5.4)	□ Yes	□ Yes	
33	Effective tanker and terminal communications are established (21.1.1, 21.1.2)	□ Yes	□ Yes	Form 11.5 terminal
34	Transfer equipment is in safe condition (isolated, drained and de-pressurised) (18.4.1)	□ Yes	□ Yes	
35	Operation supervision and watchkeeping is adequate (7.9, 23.11)	□ Yes	□ Yes	
36	There are sufficient personnel to deal with an emergency (9.11.2.2, 23.11)	□ Yes	□ Yes	ERT(Emer.Resp.Team)
37	Smoking restrictions and designated smoking areas are established (4.10, 23.10)	□ Yes	□ Yes	WARNING POSTED
38	Naked light restrictions are established (4.10.1)	□ Yes	□ Yes	WARNING POSTED
39	Control of electrical and electronic devices is agreed (4.11, 4.12)	□ Yes	□ Yes	"Ex" type
40	Means of emergency escape from both tanker and terminal are established (20.5)	□ Yes	□ Yes	
41	Firefighting equipment is ready for use (5, 19.4, 23.8)	□ Yes	□ Yes	
42	Oil spill clean-up material is available (20.4)	□ Yes	□ Yes	
43	Manifolds are properly connected (23.6.1)	□ Yes	□ Yes	
44	Sampling and gauging protocols are agreed (23.5.3.2, 23.7.7.5)	□ Yes	□ Yes	

45	Procedures for cargo, bunkers and ballast handling operations are agreed (21.4, 21.5, 21.6)	□ Yes	□ Yes	At meeting
46	Cargo transfer management controls are agreed (12.1)	□ Yes	□ Yes	At meeting
48	Cargo tank gas freeing arrangements agreed (12.4)	□ Yes	□ Yes	See also part 7C N/A
49	Cargo and bunker slop handling requirements agreed (12.1, 21.2, 21.4)	□ Yes	□ Yes	See also part 7C N/A
50	Routine for regular checks on cargo transferred are agreed (23.7.2)	□ Yes	□ Yes	
51	Emergency signals and shutdown procedures are agreed (12.1.6.3, 18.5, 21.1.2)	□ Yes	□ Yes	Form 11.6 terminal
52	Safety data sheets are available (1.4.4, 20.1, 21.4)	□ Yes	□ Yes	In CCR
53	Hazardous properties of the products to be transferred are discussed (1.2, 1.4)	□ Yes	□ Yes	At meeting
54	Electrical insulation of the tanker/terminal interface is effective (12.9.5, 17.4, 18.2.14)	□ Yes	□ Yes	
55	Tank venting system and closed operation procedures are agreed (11.3.3.1, 21.4, 21.5, 23.3.3)	□ Yes	□ Yes	NO VENTING FOR LNG
56	Vapour return line operational parameters are agreed (11.5, 18.3, 23.7.7)	□ Yes	□ Yes	FREE FLOW METOD
57	Measures to avoid back-filling are agreed (12.1.13.7)	□ Yes	□ Yes	At meeting
58	Status of unused cargo and bunker connections is satisfactory (23.7.1, 23.7.6)	□ Yes	□ Yes	
59	Portable very high frequency and ultra high frequency radios are intrinsically safe (4.12.4, 21.1.1)	□ Yes	□ Yes	<1 watt
60	Procedures for receiving nitrogen from terminal to cargo tank are agreed (12.1.14.8)	□ Yes	□ Yes	At meeting

Part 5B. Tanker and terminal: bulk liquid chemicals. Checks pre-transfer N/A FOR LNG

Part 5C. Tanker and terminal: liquefied gas. Checks pre-transfer

71	Inhibition certificate received (if required) from manufacturer	□ n/a	□ n/a	N/A
72	Water spray system is operational (5.3.1, 19.4.3)	□ Yes	□ Yes	
73	Appropriate personal protective equipment is identified and available (4.8.1)	□ Yes	□ Yes	
74	Remote control valves are operational	□ Yes	□ Yes	
75	Cargo pumps and compressors are operational	□ Yes	□ Yes	
76	Maximum working pressures are agreed between tanker and terminal (21.4, 21.5, 21.6)	□ Yes	□ Yes	
77	Reliquefaction or boil-off control equipment is operational	□ Yes	□ Yes	
78	Gas detection equipment is appropriately set for the cargo (2.4)	□ Yes	□ Yes	
79	Cargo system gauge operation and alarm set points are confirmed (12.1.6.6.1)	□ Yes	□ Yes	
80	Emergency shutdown systems are tested and operational (18.5)	□ Yes	□ Yes	
81	Cargo handling rate and relationship with valve closure times and automatic shutdown systems is agreed (16.8, 21.4, 21.5, 21.6)	□ Yes	□ Yes	SHORE: 60 SEC SHIP:
82	Maximum/minimum temperatures/pressures of the cargo to be transferred are agreed (21.4, 21.5, 21.6)	□ Yes	□ Yes	MAX MANIFOLD 4.2 BAR

83	Cargo tank relief valve settings are confirmed (12.11, 21.2, 21.4)	□ Yes	□ Yes	

Part 6. Tanker and terminal: agreements pre-transfer

Part 5 item	Agreement	Details	Tanker initials	Terminal initials
32	Tanker manoeuvring readiness	Notice period (maximum) for full readiness to manoeuvre: Period of disablement (if permitted):		
33	Security protocols	Security level: □ 1 - □ 2 - □ 3 Local requirements:		
33	Effective tanker/terminal communications	Primary system: OPTIC/EL LINK Backup system:LM radio, in Em.cy VHF 08		
35	Operational supervision and watchkeeping	Tanker: 1 OFF, 3 RATING Terminal: 2 CRO, 2 MULTI-CRAFT		
37 38	Dedicated smoking areas and naked lights restrictions	Tanker: Terminal: dedicated terminal smoking area.		
45	Maximum wind, current and sea/swell criteria or other environmental factors	Stop cargo transfer: Disconnect: Unberth:		
45 46	Limits for cargo, bunkers and ballast handling	Maximum transfer rates: 13600 CBM/H Topping-off rates: Maximum manifold pressure: 4.2 BAR Cargo temperature: -160°C Other limitations:terminal MARVS 250 mbar		
45 46	Pressure surge control	Minimum number of cargo tanks open: Tank switching protocols: Minimum number of cargo tanks open: Tank switching protocols: Full load rate: Topping-off rate: Closing time of automatic valves:		
46	Cargo transfer management procedures	Action notice periods: Transfer stop protocols:		
50	Routine for regular checks on cargo transferred are agreed	Routine transferred quantity checks: 1 HOUR		
51	Emergency signals	Tanker: Terminal: ATT 11.6		

Part 6. Tanker and terminal: agreements pre-transfer

55	Tank venting system	Procedure: N/A		
55	Closed operations	Requirements:		
56	Vapour return line	Operational parameters: FREE FLOW Maximum flow rate: 12600 CBM/H		
60	Nitrogen supply from terminal	Procedures to receive: Maximum pressure: 5 bar Flow rate:		

83	For gas tanker only: cargo tank relief valve settings	Tank 1:_____Tank 2:_____ Tank 3:_____Tank 4:_____ Tank 5:_____Tank 6:_____		
XX	Exceptions and additions	Special issues that both parties should be aware of:		

Part 7A. General tanker: checks pre-transfer

84	Portable drip trays are correctly positioned and empty (23.7.5)	□ Yes	
85	Individual cargo tank inert gas supply valves are secured for cargo plan (12.1.13.4)	□ Yes	
86	Inert gas system delivering inert gas with oxygen content not more than 5% (11.1.3)	□ Yes	
87	Cargo tank high level alarms are operational (12.1.6.6.1)	□ Yes	
88	All cargo, ballast and bunker tanks openings are secured (23.3)	□ Yes	

Declaration

We the undersigned have checked the items in the applicable parts 1 to 7 as marked and signed below:

	Tanker	Terminal
Part 1A. Tanker: checks pre-arrival	□	N/A
Part 2. Terminal: checks pre-arrival	N/A	□
Part 3. Tanker: checks after mooring	□	N/A
Part 4. Terminal: checks after mooring	N/A	□
Part 5A. Tanker and terminal: pre-transfer conference	□	□
Part 5C. Tanker and terminal: liquefied gas. Checks pre-transfer	□	□
Part 6. Tanker and terminal: agreements pre-transfer	□	□
Part 7A. General tanker: checks pre-transfer	□	□

In accordance with the guidance in chapter 25 of *ISGOTT*, we have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the tanker and terminal are in agreement to undertake the transfer operation. We have also agreed to carry out the repetitive checks noted in parts 8 and 9 of the *ISGOTT* SSSCL, which should occur at intervals of not more than 4 hours for the tanker and not more than 4 hours for the terminal. If, to our knowledge, the status of any item changes, we will immediately inform the other party.

Tanker	Terminal
Name	Name
Rank	Position
Signature	Signature
Date	Date
Time	Time

ISGOTT Checks during transfer Ship/Shore Safety Checklist

Repetitive checks

Part 8. Tanker: repetitive checks during and after transfer

Item ref	Check	Time	Time	Time	Time	Time	Time	Remarks
Interval time: 4 Hrs								
8	Inert gas system pressure and oxygen recording operational	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
9	Inert gas system and all associated equipment are operational	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
11	Cargo tank atmospheres are at positive pressure	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
18	Mooring arrangement is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
19	Access to and from the tanker is safe	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
20	Scuppers and savealls are plugged	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
23	External openings in superstructures are controlled	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
24	Pumproom ventilation is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
28	Tanker is ready to move at agreed notice period	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
29	Fendering is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
33	Communications are effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
35	Supervision and watchkeeping is adequate	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
36	Sufficient personnel are available to deal with an emergency	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
37	Smoking restrictions and designated smoking areas are complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
38	Naked light restrictions are complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
40 41 42 51	Emergency response preparedness is satisfactory	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	

54	Electrical insulation of the tanker/terminal interface is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
55	Tank venting system and closed operation procedures are as agreed	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	NO VENTING PERMITTED
85	Individual cargo tank inert gas valves settings are as agreed	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
86	Inert gas delivery maintained at not more than 5% oxygen	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
87	Cargo tank high level alarms are operational	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
	Tanker initials							

Part 9. Terminal: repetitive checks during and after transfer

Item ref	Check	Time	Time	Time	Time	Time	Time	Remarks
Interval time: 4 hrs								
18	Mooring arrangement is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
19	Access to and from the terminal is safe	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
29	Fendering is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
32	Spill containment and sumps are secure	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
33	Communications are effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
35	Supervision and watchkeeping is adequate	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
36	Sufficient personnel are available to deal with an emergency	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
37	Smoking restrictions and designated smoking areas are complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
38	Naked light restrictions are complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
40 41 47 51	Emergency response preparedness is satisfactory	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
54	Electrical insulation of the tanker/terminal interface is effective	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes	
55	Tank venting system and closed operation procedures are as agreed	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	□ Yes N/A	NO VENTING PERMITTED

	Terminal initials / Loading Master							

Attachment 11.4 Cargo Handling Agreement

LNG CARRIER : DATE :						
QUANTITY OF CARGO ONBOARD: m3 QUANTITY OF CARGO TO DISCHARGE : m3						
CONFIRM VAPOR WILL BE SENT BACK TO LNG Carrier:						
NUMBER OF BERTH LIQUID ARMS TO BE USED FOR TRANSFER : 1 2 4 LIQUID 3 VAPOR						
LNG's CARGO LINES CONDITION : ☐ WARM ☐ COOLED-DOWN TO : C						
TANKS CONDITION	TK No. 1	TK No.2	TK No.3	TK No.4	TK No.5	TK No.6
PRESSURE (bar or Kpa)						
CARGO TANK TEMPERATURE (°C)Top & Bottom Average (Membrane)						
Equator (Moss)						
LEVEL						
VOLUME						

CONFIRM OPTICAL/ELECTRICAL E.S.D. IS OPERATIVE :	CONFIRM PNEUMATIC E.S.D IS OPERATIVE:
CONFIRM OPTICAL/ELECTRICAL E.S.D WILL BE USED AS PRIMARY MEANS IN CASE OF EMERGENCY : ☐	CONFIRM PNEUMATIC E.S.D WILL BE USED IN CASE OF OPTICAL/ELECTRICAL E.S.D FAILURE: ☐
CLOSING RATES OF SHORE E.S.D VALVES: 60 seconds	CLOSING RATES OF SHIP E.S.D VALVES:
STARTING TIME COOLDOWN (EST):	DURATION OF COOL-DOWN :
STARTING TIME OF DISCHARGE (EST) :	DURATION OF DISCHARGE (EST) :
CONFIRM STOP DISCHARGE ON : ☐ LNG CARRIER REQUEST ☐ TERMINAL REQUEST	
LNG COOLDOWN RATE REQUD BY TERMINAL (M3/HR.)	AGREED UPON MANIFOLD BP : Bar or Kpa
MAX. DISCHARGE RATE FOR TERMINAL:(M3/HR.)	MAX. DISCHARGE RATE FOR LNG CARRIER :(M3/HR.)
MAXIMUM MANIFOLD BP :Bar or Kpa	MAXIMUM MANIFOLD BP : Bar or Kpa
TERMINAL STARTING RATE REQUIRED:(M3/HR.)	STRIPPING RATE :(M3/HR.) NA
NOTIFICATION TIME REQUIRED FOR SLOWING DOWN	NOTIFICATION TIME REQUIRED FOR STOPPING
EXPECTED RANGE OF VAPOR RETURN TEMPERATURE (Degree C) Around – 130°C	MAXIMUM FLOW OF VAPOR RETURN (M3/HR)
CONFIRM ALL NECESSARY CARGO HANDLING PROCEDURES HAVE BEEN UNDERSTOOD:	

FOR ADRIATIC TERMINAL	FOR LNG Carrier
Name	Name .....
Position.....	Position.....
Signature.....	Signature.....
Time.....	Time.....

Attachment 11.5 Communication Agreement

LNG CARRIER: DATE:

A FIBER OPTIC / ELECTRICAL LINK HAS BEEN CONNECTED TO YOUR LNG CARRIER. IT WILL ENABLE THE FOLLOWING MEANS OF COMMUNICATIONS:

E.S.D FROM THE LNG Carrier (emergency shut-down)	→	uni-directional. Can be activated at any time from the LNG Carrier in case of emergency. Inform Terminal as far as possible before use.
E.S.D FROM TERMINAL (emergency shut-down)	→	uni-directional. Can be activated at any time from the Terminal in case of emergency. Inform LNG Carrier as far as possible before use.
☎ HOT LINE	→	bi-directional. To contact directly the Terminal Control Room in case of emergency.
☎ TERMINAL INTERNAL LINE	→	bi-directional. To exchange normal information between LNG Carrier and Terminal Control Room during cargo handling operations.
☎ PUBLIC LINE	→	bi-directional. Enable the LNG Carrier to use the national telephone network.
MOORING LINE TENSION DATA	→	uni-directional. For the LNG Carrier to receive information on the tension of each mooring line.

A PNEUMATIC LINK HAS BEEN CONNECTED TO YOUR LNG Carrier. IT WILL ENABLE THE FOLLOWING MEANS OF COMMUNICATION :

E.S.D FROM THE LNG Carrier (emergency shut-down)	→	uni-directional. Can be activated at any time from the LNG Carrier in case of emergency. Inform Terminal as far as possible before use.
E.S.D FROM TERMINAL (emergency shut-down)	→	uni-directional. Can be activated at any time from the Terminal in case of emergency. Inform LNG Carrier as far as possible before use.

In the event that your LNG Carrier does not have a fixed U.H.F. radio system compatible with the Terminal, a PORTABLE U.H.F RADIO will be provided to your LNG Carrier. IT WILL ENABLE THE FOLLOWING MEANS OF COMMUNICATIONS :

Terminal Control Room	**UHF ch.**	**YES**	**VHF ch.**	**08/16**
Jetty Personnel	**UHF ch.**	**YES**	**VHF ch.**	**NO**
Marine Terminal Representative	**UHF ch.**	**YES**	**VHF ch.**	**NO**

FOR LNG Carrier	**FOR ADRIATIC LNG TERMINAL**
Name ……	Name ……
Position……	Position……
Signature……	Signature……
Time……	Time……

Attachment 11.6 Emergency Contacts and Signals	
LNG CARRIER:	DATE:

EMERGENCY CONTACTS AND SIGNALS

In event of an EMERGENCY the following communication channels are available**.**

<u>Terminal Control-room Via:</u>

HOTLINE
UHF
VHF (CH. 08/16)

If no contact immediately contact the onboard Terminal Representative

In the event of an EMERGENCY on the Terminal the following Audible and Visual Signals will be made

Alarm Type	Audible	Visual
Terminal General Alarm	Intermittent audible Signal	Flashing Red Light
Terminal Prepare for Evacuation Alarm	Continuous audible Signal	Flashing Red Light

FOR LNG Carrier	FOR ADRIATIC TERMINAL
Name	Name .....
Position.....	Position..... .....
Signature.....	Signature..... .....
Time.....	Time..... .....

Attachment 11.8 Emergency Stop Report

The Cargo Emergency Stop Report form must be completed when a cargo emergency stop is initiated. The form must in all cases be completed by the Terminal Representative and Master and as appropriate by Marine Terminal personnel or Maritime Authority personnel.

LNG Carrier name				
Port of Registry				
Terminal Representative name				
LNG Carrier Master name				
Cargo Emergency Stop initiated	Date		Time	
Cargo Emergency Stop initiated by	LNG Carrier		Terminal	
Person initiating Cargo Emergency Stop	Name		Name	
Position				
Cause (tick)	Fire	☐	LNG Release	☐
	Weather	☐	Injury	☐
	Equipment failure	☐	Other (specify)	☐
Details				
Unmooring required?	Yes ☐		No ☐	
	Date	Time		
Operations resumed?	Yes ☐		No ☐	
	Date	Time		
Are appropriate reports completed and processed?	Yes ☐		No ☐	
	Details			
Are recommendations made to prevent recurrence before operations resume?	Yes ☐		No ☐	
	Details			
Has Maritime Authority been informed and approved of resumption of operations?	Yes ☐			
Recommendations approved	OIM signature Terminal Representative signature Master signature			

Attachment 11.11 Emergency Response Actions

The response to any incident will depend on the nature, location and severity of the event.

ALNG and LNG Carrier must be directed by their respective Emergency Response Plans

The following contains bulleted immediate actions are to be taken by the principle parties.

If marine craft (s) are required to approach or go to alongside the LNG Carrier concerned, they must only do so after ALNG has confirmed that unloading operations have been stopped.

The following list of minimum actions of Masters is provided without prejudice to the actions the Master shall undertake in addition as a prudent and diligent operator.

All Incidents

LNG Carrier Related Incidents

ACTION BY LNG Carrier

1) Initiate emergency cargo transfer shutdown and closure of ESD valves.
2) Raise General Alarm and Initiate Emergency Response plan as required
3) Inform ALNG and keep informed, of the nature and location of incident (e.g., Mooring Failure/LNG Carrier out of position/Fire) and action being taken by LNG Carrier and assistance required ALNG and Maritime Authorities,
4) Inform onboard Terminal Representative and Pilot
5) Notify Tugs to be on stand-by and ready to provide assistance as required.
6) Prepare for loading arm disconnection and unmooring, including emergency unmooring

ACTION BY ALNG

1) Initiate emergency shut-down of cargo transfer.
2) Initiate Terminal Emergency Response Plan
3) Establish communications with stand-by tugs.
4) Establish communications with onboard Terminal Representative.
5) Advise Maritime Authorities of the nature of incident and to stand by in case assistance is required.

ACTION BY TUGS & PILOT

1) Go to immediate stand-by
2) Tugs Initiate water spray or deluge systems as required
3) Await instructions as directed by ALNG or LNG Carrier Master.

Terminal Related Incidents

ACTION BY ALNG

1) Raise General Alarm and initiate Terminal Emergency Response Plan.
2) Initiate emergency LNG transfer shut-down and closure of ESD valves.
3) Inform the LNG Carrier of the nature of the incident and keep them informed of status.
4) Advise Maritime Authorities of the nature of the incident and to stand-by in case assistance is required.
5) Request all tugs to go to standby.
6) Establish communications with onboard Terminal Representative and to standby as directed

ACTION BY LNG Carrier

Action required by LNG Carrier's berthed alongside the Terminal's jetty will depend on the nature, location and proximity of the incident to the jetty:

1) Initiate cargo shutdown.
2) Initiate onboard emergency response plan.
3) Standby for loading arm disconnection and unmooring, including emergency unmooring.
4) Maintain radio contact with Terminal.
5) Notify Terminal Representative and Pilot

ACTION BY TUGS & PILOT

1) Go to immediate stand-by
2) Tugs Initiate water spray or deluge systems as required
3) Await instructions as directed by Terminal or LNG Carrier Master.

Specific Incidents

The following contains specific additional bulleted immediate actions to be taken by the parties.

Oil spill from LNG Carrier

ACTION BY LNG Carrier

1) Isolate source of pollution and take whatever steps necessary to prevent or minimise
2) Mobilize onboard pollution response plan.
3) Initiate clean up onboard.

ACTION BY ALNG

1) Verify source and type of pollutant
2) Secure all sources of ignition

ACTION BY TUGS

1) Stand-by tugs prepare to assist.
2) Stand off upwind until nature and type of spill has been established.

Uncontrolled release of LNG Vapor or Liquid from Ship / Shore

ACTION BY LNG Carrier

1) Secure all sources of ignition and impose a total smoking ban.
2) Initiate water spray systems or deluge as required

ACTION BY ALNG

1) Secure all sources of ignition and impose a total smoking ban
2) Allow automatic Fire and Gas, fire extinguishing and emergency shutdown and depressurization systems to work.
3) Operate Jetty fire monitors if applicable.

ACTION BY TUGS & PILOT

1) Stand-by tugs to activate fire fighting and deluge systems.
2) Stand well clear upwind.
3) Await instructions from Terminal.
4) Secure all ignition sources.
5) Impose total smoking ban.

LNG Carrier Collision within Safety Zone

ACTION BY LNG CARRIER(S)

1) Identify other vessel and render assistance as required

ACTION BY ALNG

1) Initiate call out of Terminal Man-overboard response team.
2) Place medical services on standby.

ACTION BY TUGS

1) Stand-by tugs to respond as directed by Terminal or LNG Carrier Master.

Man overboard Incident within the Terminal

In the event of a man overboard situation within the Terminal Safety Zone, all LNG Carrier movements are to be suspended while search and rescue activities take place.

Extreme caution is required by the search vessels, particularly during hours of darkness, when approaching or entering the search area.

ACTION BY LNG CARRIER

1) Throw person in the water a life buoy or floating aid.
2) Raise the alarm by sounding three long blasts on the LNG Carrier's whistle.
3) Inform Terminal Central Control Room who will stop the unloading if the person in the water is within 100m of the Terminal and advice circumstances.
4) Place lookout and constantly monitor position of person in the water.
5) Request Terminal Central Control Room to mobilize rescue from the Maritime Authorities.
6) Direct responding vessels to the person in water.

ACTION BY ALNG

1) Stop unloading if requested or if person in water is within 100m of the Terminal.
2) Inform Maritime Authorities
3) Initiate call out of Terminal Man-overboard response team.
4) Place medical services on standby.

ACTION BY TUGS

1) Stand-by tugs to respond as directed by Terminal or LNG Carrier Master.
2) Remaining tugs to be mobilized, if required

LNGC Out of Position

ACTION BY LNG Carrier

1) Initiate emergency shut-down procedures.
2) Clear manifold area in case of ES2 activation
3) Prepare to for tug connection and unmooring, including emergency unmooring

ACTION BY ALNG

1) Initiate or confirm emergency shut-down.
2) Prepare for Loading arm disconnection and raising of gangway
3) Consider Initiating Jetty area fire and deluge systems
4) Prepare for release of LNGC, including emergency release

ACTION BY TUGS & PILOT

1) Proceed to LNGC and prepare for connecting towlines.
2) Await instructions from Pilot or LNGC master for unberthing operations