



## Ministry of Infrastructure and Transport COAST GUARD OF THE PORT OF CHIOGGIA ORDER

The Head of the Maritime Department of Chioggia:

- HAVING REGARD TO:** its Order no. 63/2008 dated 02/09/2008 containing the "Adriatic LNG Marine Terminal Safety and Maritime Police Regulations";
- HAVING REGARD TO:** the minutes of the local Commission drawn up pursuant to art. 48 reg.c.nav. on 21/03/2019 and 21/06/2019;
- HAVING REGARD TO:** the minutes of the local inspection commission pursuant to art. 49 of the Regulations implementing the Navigation Code held on 22/09/2022;
- HAVING REGARD TO:** prot. sheet no.29621 dated 19/10/2022 with which the Coast Guard of Chioggia informed senior General Management about the successful termination of the experimental phase for the free docking of Q-Flex-type vessels;
- HAVING REGARD TO:** prot. sheet no. 33709 dated 01/12/2022 with which the Coast Guard of Chioggia gave the requesting licensee Company a number of precautionary requirements pending the preparation of a mathematical study, validated by a certified body, in order to allow the definition of the most suitable safety device for the docking of fully loaded Q-flex type ships;
- HAVING REGARD TO:** the results of technical study no. MA-001 -01 -2023 (Q-Flex mooring and berthing analysis) of Soc. PMSC S.A. of Lugano, commissioned by the licensee company, communicated in note prot. no. 12344 dated 05/05/2023, and the related document "design verification report" by Det Norske Veritas certifying compliance with the OCIMF Mooring Equipment Guidelines rev.4 (DVR n.10436822-DVR-01 of 28/04/2023);
- HAVING REGARD TO:** the communication sent by Institutional E-mail on 28/04/2023 by the Licensee company of the Tugboats Service of the port of Chioggia containing an independent analysis carried out by Bureau Veritas (document no. BVS13870 reg. no.001 of 28/04/2023) regarding the document "Q-Flex mooring and berthing analysis" referred to above, which highlights the factors not taken into account and the objective observations to be taken into account;
- HAVING REGARD TO:** the note filed at prot. 14343 on 23/05/2023 containing the technical opinion expressed by the Licensee Company of the Tugboats Service of the port of Chioggia, which refers to the results of the attached study (document no. BVS13870 reg. no. 002 of 19/05/2023 - berthing bollard pull analysis), commissioned to Bureau Veritas, which shows new considerations regarding forces in the field in certain dynamic phases in the manoeuvring of fully loaded Q-Flex ships;
- HAVING REGARD TO:** the note filed at prot. 16247 dated 07/06/2023 containing the technical opinion expressed by the Pilots' Corporation of Chioggia and Porto Levante;
- HAVING REGARD TO:** the note acquired at prot. 16988 on 14/06/2023 containing the technical opinion expressed by the Cooperativa Ormeggiatori Company of the Port of Chioggia;
- HAVING REGARD TO:** the International Convention for the Prevention of Collisions at Sea (Colreg'72), made enforceable by Law no. 1085 of 21/12/1977 and subsequent amendments;
- HAVING REGARD TO:** the Decree of the President of the Republic of 24 May 1979, no. 886 containing "Supplementation and adaptation of policing regulations for mines and quarries, contained in the decree of the President of the Republic of 9 April 1959, no. 128, in order to regulate prospecting, research and production activities for Hydrocarbons in territorial waters and on the continental shelf";
- HAVING REGARD TO:** Law 31 December 1982, no. 979 containing the "Provisions for the defence of the sea";

**HAVING REGARD TO:** the International Convention for the Protection of Human Life at Sea (SOLAS), made enforceable in Italy by Law no. 313/80 and subsequent amendments;

**HAVING REGARD TO:** Legislative Decree 2/8/2007 "Provisional regulations for the maritime bulk transport of dangerous goods in gaseous state, regulations for clearance and administrative procedures for the issuing of authorisation to embark and disembark the goods themselves";

**HAVING REGARD TO:** the "Guidelines for the regulation of the safety of maritime approaches and services" attached to Presidential Decree No. 88673 dated 04/07/2018 of the General Command of the Port Authorities - Department II 2nd Office;

**HAVING REGARD TO:** articles 30, 62, 81 of the Navigation Code, as well as art. 59 of the relevant Implementing Regulation;

**TAKING INTO ACCOUNT:** opinions received from the local technical nautical services regarding the most appropriate conditions for the safe conduct of docking operations with fully loaded Q-Flex type ships in the light of the technical studies received and shared, the professional experience of the operators and their related analyses;

**CONSIDERING:** an assessment carried out by its Offices based on all the elements learned on the new characteristics and manoeuvring responses of Q-Flex- type ships in the approach, mooring, berthing, load transferral and unmooring phases, carried out according to the indications contained in the national directives and international guidelines also in view of the high danger of the goods transported and the peculiarities of operations carried out on the open sea remote from coastal facilities, as well as the relevant human factor, to analyse the foreseeable risks to reduce or mitigate their negative effects and maintain the levels of residual risk within an acceptable margin;

**IT BEING UNDERSTOOD THAT:** it is necessary to amend/update the regulation attached to Order no. 63/2008 for the exclusive purposes of navigational safety and the safeguarding of human life at sea, following the above innovations;

## ORDERS

### Article 1

Revision no. 01 is approved of the annex to Order no. 63/2008 containing the "Adriatic LNG Marine Terminal Safety and Maritime Policing Regulations"

### Article 2

Violators of this Order will be punished, unless the act constitutes a crime, pursuant to art. 1164 of the Navigational Code or other special laws, in particular art. 53 of Legislative Decree no. 171 of 18 July 2005, if operating recreational craft, or of the combined provisions of articles 15 lett.a) and of Legislative Decree no. 4 of 9 January 2012 containing "Measures for the reorganisation of legislation on fisheries and aquaculture" if the violation relates to the prohibition of any fishing activity, and will in any case be held responsible for any damage that may arise as a result of non-compliance with the provisions.

It is mandatory for all persons to observe and enforce this Order, which will be published on the website [www.guardiacostiera.it/chioggia](http://www.guardiacostiera.it/chioggia) in the "Orders" section.  
Chioggia, date of registration

THE MASTER

*Frigate Captain (CP) Dario RICCOBENE*

(document signed with digital signature pursuant to Legislative Decree 07/03/2005, no. 82)

Digitally Signed by:

**DARIO FILIPPO GIOVANNI RICCOBENE**

In Data/On Date:  
Thursday 22 June 2023 10:13:30



**Ministry of Infrastructure and Transport**

**COAST GUARD OF CHIOGGIA**

**Safety and maritime policing regulations of the  
Adriatic LNG marine terminal**

Rev. 01 dated 22/06/2023

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### ANNEXES

## **ART. 1 DESCRIPTION OF THE TERMINAL**

The Terminal belonging to "TERMINALE GNL ADRIATICO s.r.l." is a liquefied natural gas (LNG) storage and regasification plant and consists of a fixed concrete structure (GBS), with East/West orientation, measuring about 180 metres in length and 90 metres in width and containing two LNG storage tanks of 125,000 m<sup>3</sup> each in volume and other equipment located on the upper deck.

A 30" diameter connection pipe enables the gas to be sent to the national network.

Two separate mooring structures are located at the East and West ends of the concrete base and are connected by two walkways, making the total length of the structure 385 meters. Mooring pylons on the north side of the terminal enable LNG ships to be moored at the terminal for unloading operations.

**The Terminal is located at geographical coordinates (datum WGS-84):**

**Lat. 45° 05'.30 N - Long. 012° 35'.10 E.**

The Terminal - equipped with a Racon signaller that emits its signal in the morse form of the letter "U" - is signalled by:

### **MAIN LIGHTS:**

- a) four (4) white main lights, two being placed on the mooring structures and two on the central "GBS" body at the North-West and South-East corners;
- b) two (2) red main lights installed on the central "GBS" body at the North-West and South-East corners;

### **SECONDARY LIGHTS:**

- a) four (4) white secondary lights, two being placed on the mooring structures and two on the central "GBS" body at the North-West and South-East corners;
- b) two (2) red secondary lights installed on the central "GBS" body at the North-West and South-East corners.

## **ART. 2 DEFINITIONS**

For the purposes of this Regulation:

- a) Coast Guard: Coast Guard of the Port of Chioggia;
- b) TERMINALE GNL ADRIATICO S.r.l (or Adriatic LNG): The Company holding the state license, operator of the Terminal, which possesses - also privately and for the safety of technical-nautical-maritime operations related to the arrival, berthing and departure of methane tankers from the plant where they operate - the professional capabilities that guarantee, pursuant to art. 14 paragraph 1 ter of Law no. 84/94 and subsequent amendments, the safety of navigation and docking;
- c) Terminal: Offshore regasification terminal, with its centre at the following coordinates WGS-84: Lat. 45° 05'.30 N - Long. 012° 35'.10 E;
- d) Area ATBA: *Area To Be Avoided/Mandatory No Anchoring Area* -: Circular area, with its central point at the centre of the Terminal, with a radius of 1.5 nautical miles as defined in IMO Circular No. SN1/Circ.257 dated 11 December 2006 "*Routeing measures other than traffic separation schemes*" (marked with the letter "B" in Annex 1).
- e) Safety Zone: circular area, with its central point at the centre of the Terminal, with a radius of 2,000 metres as defined in IMO Circular No. SN1/Circ.257 dated 11 December 2006 "*Routeing measures other than traffic separation schemes*" (marked with the letter "A" in Annex 1);
- f) "OIM": *Offshore Installation Manager*. Shift manager at the Terminal;

- g) Pilotage, mooring, towing: professional operational services used by TERMINALE GNL ADRIATICO s.r.l., also privately where permitted, identified for the purposes of this regulation as those that guarantee, pursuant to art. 14, paragraph 1b, of Law no. 84/94 and subsequent amendments, the safety of navigation and docking;
- h) The pilot, mooring crew, tugboats, professional operators performing the services referred to in letter g) above;
- i) Night-time hours: the period from sunset to half an hour before sunrise, calculated with reference to the geographical coordinates of the platform.

### **ART. 3 SAFETY AREAS**

**In the ATBA area (with a radius of 1.5 M from the central position) anchoring is strictly forbidden.**

Entry into the "ATBA" area is prohibited to all ships with a gross tonnage equal to or greater than 200 tons not authorized by specific act of the Coast Guard, with the sole exception of vessels engaged in the unloading of liquefied natural gas "LNG", and naval vessels of the Coast Guard and the Police Forces in line with their institutional duties.

Vessels that enter the aforementioned area and that are not intended for or connected with the Terminal's operation must in all cases remain outside the Safety Zone.

When sailing within the "ATBA" area, all authorized ships must sail at a speed that, while ensuring the constant control of the vessel, is such as to not endanger the safety of other ships and the Terminal facilities.

LNG tankers needing to operate at the Terminal must have a Pilot on board when sailing within the "ATBA" area, during mooring and unmooring, and during all commercial operations.

Any transit, anchoring, stationing of waiting vessels, any form of fishing, any underwater activities that are not expressly authorized and any other activities are prohibited in the **Safety Zone**. All movements within the Safety Zone - excepting those of vessels assigned to the services of the Terminal, those of the Coast Guard and those of the Police Forces - must be authorised by the Coast Guard and the Terminal.

In order to enter the safety zone, vessels assigned to the services of the Terminal must be authorized by the Coast Guard having presented a request, with stamp duty paid, to Terminale GNL Adriatico. If a permanent authorisation is issued this will be valid for up to 12 months, after which it must be renewed.

All ships within the Safety Zone must have their main engines always ready for use, to be able to provide propulsion even at the shortest notice.

The following vessels have permission to sail within the "ATBA" area and, if duly authorised by the Coast Guard, within the Safety Zone without the obligation to take on a pilot.

1. support and supply vessels, authorized pursuant to the preceding paragraphs, for the transport of personnel and/or supplies and materials directed exclusively to the Terminal, and assistance craft;
2. Tugboats and other vessels supporting the mooring and unmooring of ships at the Terminal;
3. Vessels of the Coast Guard and the Police Forces.

### **ART. 4 ANCHORAGE AREA**

If needed, LNG tankers destined for the Terminal must use the CST (Chioggia Small Tanker) anchorage area located about 7 miles to the NW of the Terminal and shown on the official cartography, upon prior authorisation of the Coast Guard. Only one ship at a time may stay inside the anchorage area. LNG vessels directed to the Terminal are not authorised to stop in other areas of the Maritime Compartment, unless specific evaluations have been made by the Maritime Authority following reasoned requests.

## **ART. 5 REQUISITES FOR LNG TANKERS SAILING TO THE TERMINAL**

LNG tankers bound for the Terminal must comply with certain requisites and be in possession of the documentation and certifications required by the legislation in force, particularly Ministerial Decree August 2, 2007 *"Provisional regulations for the maritime bulk transport of dangerous goods in gaseous state, regulations for clearance and administrative procedures for the issuing of authorisation to embark and disembark such goods"*.

LNG tankers complying with the following construction parameters will be permitted to moor at the Terminal:

Max. total length of the vessel	320 m
Max GRT	145000 t
Max DWT	148000 metric t
Max draught	13 mt
Max cub capacity	217,000 m <sup>3</sup>

Table 1

In managing the mooring operations of LNG tankers at the Terminal, the ship must also comply with the provisions of its own SSP (*Ship Security Plan*) and those of the Terminal in its PFSP (*Port Facility Security Plan*).

## **ART. 6 MOORING AND UNMOORING OPERATIONS**

Mooring operations of LNG tankers at the Terminal must take place in favourable weather conditions, with visibility always exceeding 500 meters, with a current strength never exceeding 1 knot, and in compliance with the following maximum limits other than any more restrictive assessments by the Master of the vessel, who remains in all cases responsible for the manoeuvre:

<b><u>Activity</u></b>	<b><u>Conventional vessels</u></b>	<b><u>Q-Flex-type / Large Conventional vessels</u></b>	<b><u>Direction / Duration</u></b>
Significant wave height limits for carrying out the mooring and unmooring operation	<u>1.0 m</u>	<u>1.0 m</u>	<u>045 to 225 degrees</u>
	<u>1.5 m</u>		<u>225 to 045 degrees</u>
Wind strength limits for carrying out the mooring and unmooring operation	<u>25 knots</u>	<u>15 knots</u>	<u>1 hour from any direction</u>
Wind strength limits while moored at the Terminal	<u>30 knots</u>	<u>18 knots</u>	<u>1 hour from any direction</u>
	<u>36 knots</u>	<u>20 knots</u>	<u>30 sec gust from any direction</u>

Table 2

For mooring and unmooring operations of LNG vessels, the Terminal must identify and guarantee a 36 hour window in which the weather and sea conditions are maintained within the limits set out in table 2, starting from the starting time of the manoeuvre (coinciding with the POB) until the time when the ship is scheduled to leave the safety zone at the end of the operations.

For Q-Flex-type vessels, where wind and wave forecast data from the last usable bulletin before pilot boarding comply with the operating limits for mooring and unmooring but exceed the wind limit of 18 knots while the vessel is moored, the approach can only go ahead if the presence of an additional tugboat is ensured with characteristics that are at least equal to those indicated in Annex 4 of these Regulations. In this case, the wind strength limit while moored is raised to 22 knots (one hour from any direction).

The same requirement applies to the additional tugboat where there is a sudden deterioration of sea weather conditions or if this deterioration is ascertained after mooring (e.g. by monitoring the available weather forecasts).

The significant wave height and wind strength mentioned above must be understood as safety limit parameters for the ship. All considerations regarding the safety of workers involved in the operations in their different roles and the employer's responsibilities regarding its assessments for the prevention of accidents always remain fixed and pre-eminent.

The mooring operations of all LNG tankers, both Conventional and Q-Flex, must be carried out during the day. Unmooring at night may take place at the discretion of the Master of the vessel, where the weather conditions allow it, after consulting the Nautical Technical Services and the OIM.

Approach, mooring and unmooring manoeuvres of ships must be carried out in compliance with the COLREG 72 convention and must be agreed between the ship's master and OIM, with reference to the final decisions of the Maritime Authority.

In the event that radio contact is interrupted, manoeuvres must be suspended until this contact has been restored.

Likewise, manoeuvres must be suspended if the OIM considers this measure to be necessary for the safety of the Terminal.

The personnel involved in these manoeuvres must be equipped with portable transceivers with the required safety characteristics for operating in dangerous spaces due to the presence of flammable gases or vapours.

At least one portable emergency transceiver must be available on board the ship.

Without prejudice to the obligation to maintain continuous radio listening watch on VHF channel 16 for the entire duration of the mooring operations, communications must take place on VHF channels 8/14. Communications must be made in Italian or English.

## **ART. 7 TOWING, MOORING AND PILOTING**

In order to operate at the Terminal, LNG tankers must have assistance available in accordance with the provisions of Annexes 2, 3 and 4 of this Regulation.

In the event of potentially dangerous events or malfunctions, pilots, mooring crews and masters of the tugboats in operation are obliged to report such events to the Coast Guard of Chioggia and to the licensee, which must promptly take the appropriate corrective actions and, within 48 hours of the report, communicate to the Maritime Authority any action taken and/or any suggested improvements to be implemented.

## **ART. 8 SAFETY CONDITIONS DURING THE MOORING OF LNG CARRIERS AT THE TERMINAL**

Anchors on LNG tankers must always be ready for use whenever they enter the Safety Zone, although the Master may only order their use in the event of an emergency.

Mooring and unmooring operations must only take place in favourable weather conditions and within the limits of the parameters referred to in the previous art. 6, evaluated in consultation between the ship's captain, the pilot and the OIM.

The start of a ship's mooring and unmooring operations must always be communicated by the master of the ship to the Coast Guard.

The ship must be always ready to leave the Terminal under the power of its own propulsion system. The master assesses the number and configuration of cables deemed appropriate for safe mooring. Appropriate supervision of the quality of the mooring itself must always be ensured while the ship is at the Terminal. All cables must always be kept properly tensioned in such a way as to counteract any movements of the ship due to tidal or wave motion.

Terminal personnel and mooring crews must carry out regular checks of the mooring cables and communicate immediately with the ship's onboard commanding officer and the pilot regarding any actions that may be necessary.



The licensee Company must ensure that detailed information on the weather forecast and situation in the area of operation, as well as storm warnings, are collected on the Terminal. It must also ensure that this information is processed by expert personnel using suitable equipment so that, during commercial operations, the direction and speed of the wind, the direction and height of the waves, the direction and strength of the current, and visibility are continuously measured in order to always operate within the limits referred to in the previous art. 6.

By 30 October 2023, the Terminal operator must guarantee that the Maritime Authority has autonomous access to and readability of the meteorological data collected (wind, current, wave, visibility) to enable their interpretation in real time and to assess the safety limits established above. While the ship is moored at the Terminal, it must maintain a draught and trim such as to permit safe unmooring at any time.

LNG tankers must always be well lit on deck during the entire duration of operations, with a lighting intensity (illumination) of no less than 10 lux at one metre from working levels.

While moored, LNG tankers must be connected to the platform by means of a gangplank provided by the Terminal. During night-time hours, the deck access area and the gangplank must always be illuminated. The ship's personnel must continuously man the gangplank and the area of the *manifolds* (loading arms).

While the ship is moored, Safety and Security warnings and information must be displayed in the gangplank access area.

Repairs or other types of work that may render the ship incapable of moving autonomously are not permitted. However, all work involving the use of flame and/or thermal sources is forbidden.

Should any damage occur that makes the ship unable to manoeuvre, the Coast Guard must be promptly informed. Should emergency repairs be necessary to restore the ship to a condition enabling mooring and unmooring manoeuvres in safety, these must be carefully evaluated and if necessary authorized by the OIM in agreement with the Coast Guard.

While the ship is moored at the Terminal, the fire-fighting on board system must be efficient and ready for use; failing this, the ship must be unmoored and taken out of the safety zone.

## **ART. 9 EXAMINATION AND VERIFICATION OF LOAD TRANSFER EQUIPMENT**

TERMINALE GNL ADRIATICO S.r.l. is required to inspect and test the loading arms and related equipment weekly, and in any case every time before starting commercial operations. Details of the inspection and verification procedures must be contained within specific operating procedures for the Terminal.

Before each transfer operation, the ship/terminal communication system must be checked; the tests carried out by the Terminal and on board for the activation of ESD1 (*Emergency Shut Down 1*) must be confirmed by both parties.

At least once every 6 months, the Terminal must conduct a release test under controlled conditions similar to ESD2 (*Emergency Shut Down 2*) to check the activation of the PERC (*Powered Emergency Release Couplet*) and report the results to the Maritime Authority.

## **ART. 10 RESPONSIBILITIES FOR LNG UNLOADING OPERATIONS**

Without prejudice to the provisions of the Terminal's internal regulations regarding the flow of communications, the OIM and the ship's master must immediately inform the Coast Guard of any event that may compromise or modify the normal course of operations. Before the start of unloading operations, the Terminal must notify the Coast Guard of the name of the OIM (at the institutional email addresses: "[so.cpchioggia@mit.gov.it](mailto:so.cpchioggia@mit.gov.it)"; "[nostromi.cpchioggia@mit.gov.it](mailto:nostromi.cpchioggia@mit.gov.it)"; "[lcportolevante@mit.gov.it](mailto:lcportolevante@mit.gov.it)"), also through notifications regarding so-called operational readiness.

During commercial operations, suitably trained personnel must be present on the Terminal to monitor all LNG transfer operations; these personnel must always be in direct contact with the on-board personnel responsible for unloading operations.

The presence of the OLM must always be guaranteed on board the Terminal during interfacing operations with the ship, to be always available to manage emergencies.

## **ART. 11 PROCEDURES FOR LNG UNLOADING OPERATIONS**

During commercial operations, at least the minimum necessary crew must be maintained on board the ship to deal with any emergency manoeuvre relating to the ship's unmooring as well as any circumstance relating to the safety of the ship, persons or cargo.

On arrival of the LNG tanker, before unloading, a meeting will be held between a ship's representative and a representative of the terminal to agree on aspects related to:

- ✓ Communication between Ship / Terminal / Land;
- ✓ Ship / Terminal safety checklist;
- ✓ Emergency procedures;
- ✓ Load management plan;
- ✓ Ballast management plan;
- ✓ Procedures and requirements for "work permits".

Written agreements between the ship's master and the terminal representative must be made regarding:

- ✓ Load management;
- ✓ Communication systems between on board and the Terminal.

Before starting unloading operations, the ship's master and a representative of the Terminal must complete the "Ship/Shore Safety Check List" (see ISGOTT guidelines) in its latest available version. The checklist, duly completed in all parts and signed by both parties, must be sent to the Coast Guard via institutional email (addresses: "[so.cpchioggia@mit.gov.it](mailto:so.cpchioggia@mit.gov.it)", "[lcportolevante@mit.gov.it](mailto:lcportolevante@mit.gov.it)" and [nostromi.cpchioggia@mit.gov.it](mailto:nostromi.cpchioggia@mit.gov.it)).

The Terminal must provide a copy of these Regulations, translated into English, to the master of the LNG tanker in good time, before going ahead with the mooring.

All LNG tankers arriving at the Terminal must be equipped with an "*Emergency Shut Down*" (ESD) system and a ship/terminal connection system compatible with the Terminal.

Before starting the transfer operation, it is necessary to check that the ESD system and the ship/Terminal connection system are working.

Both the ship's on-board personnel and the Terminal personnel engaged in commercial operations must know how the "*Emergency Shut Down*" system operates and be trained to activate it in the event of danger.

During commercial operations, the ship's master and the OIM, each for their own area of competence, must order frequent checks to ensure continuing conditions of safety.

If these conditions fail to be met, the IOM must order the immediate suspension of landing operations and, if necessary, the unmooring of the ship, by sending a notification to the Operations Room of the Coast Guard.

During LNG transfer operations, equipment and persons not belonging to the Terminal's technical staff or who have not been authorized by the OLM may not access the areas involved in the operations.

If, during the unloading operations, visibility drops below 100 metres, the utmost attention must be paid and the necessary precautions must be taken, including as regards the safety of the personnel on guard duty on the ship's deck and the Terminal.

Ships must leave the Terminal as soon as commercial operations are completed, or whenever required by the Terminal or the Coast Guard.

Throughout the commercial operations, the landing and take-off of helicopters at the Terminal is prohibited, except for emergency services.

These operations will be authorised by the OIM upon receiving the agreement of the Helicopter Pilot and HLO present on the platform's Helideck, having gained the approval of the Maritime Authority.

## **ART. 12 SUSPENSION OF UNLOADING OPERATIONS FOR SAFETY REASONS**

In the event of deteriorating sea conditions, damage to equipment related to LNG transfer operations or any other problem that may endanger the safety of personnel, the ship, the Terminal or the marine environment, the ship's master or the OIM must order one of the following emergency procedures as appropriate, provided that this does not result in an even greater risk:

- a) The immediate suspension of unloading operations;
- b) The disconnection of the loading arms;
- c) The departure of the ship from the mooring.

## **ART. 13 BALLAST**

For ballast operations that must be carried out at the same time as unloading, only dedicated segregated ballast tanks must be used, ensuring optimal trim conditions, in accordance with the previous Article 8.

## **ART. 14 FIRE PREVENTION**

For fire prevention purposes, the following activities are prohibited on the Terminal and on moored ships during commercial operations:

- 1) Smoking outside designated areas;
- 2) Using portable non-flameproof lights in dangerous areas;
- 3) Carrying out hot working and/or operations that involve the use of any electrical equipment that is not intrinsically safe, without specific clearance or work permits issued by the Terminal;
- 4) Using non-intrinsically safe portable electrical equipment, including fans, telephones and lights, in hazardous areas without the due authorisations;
- 5) Keeping weapons, ammunition, rockets, fireworks and any other type of explosive/gunpowder-related material (except distress signals);
- 6) Carrying out regasification activities and transferring products from one tank to another via loading lines or temporary hoses;
- 7) Leaving the external doors of the accommodation module open.

Ship masters must also strictly adhere to the Internal Regulations of the Terminal.

Any use of radar equipment on the ship must be in accordance with the guidelines contained in the International Safety Guide for Oil Tankers and Terminals (ISGOTT), in its latest available version.

## **ART. 15 FIRE-FIGHTING SERVICE**

The terminal operator is obliged to guarantee a fire-fighting service using employees or specialist companies authorised to provide this service, and must activate the emergency procedures provided for its systems in accordance with current legislation on fire prevention and the risk of major accidents.

It will be the responsibility of TERMINALE GNL ADRIATICO S.r.l. to affix diagrams and warnings regarding emergencies and the location of the relevant usable equipment, and to prepare radio and/or telephone communication equipment to guarantee connections between the Terminal, the ships and the Coast Guard..

The organisation of these services must be the subject of a special monograph approved by the competent authorities.

## **ART. 16 ANTI-POLLUTION SERVICE**

TERMINALE GNL ADRIATICO S.r.l. is obliged to organise an anti-pollution prevention service, also using specialist companies, to be able to act promptly and effectively to limit and remediate as provided for in the "Internal Emergency Plan". This service must be the subject of a special monograph, which, if the conditions are met, will be included in the local anti-pollution plan of the Coast Guard.

## **ART. 17 PROHIBITIONS**

The following activities are prohibited on the ship when moored at the Terminal:

- a) Pumping ballast, bilge water, or waters of any nature or origin containing waste oils or residues into the sea;
- b) Causing spills of oil-based products at sea;
- c) Causing product leakage or leakage from pipes, hoses and on-board sockets.  
Any leakage on deck must be promptly collected while taking due precautions;
- d) Leaving scuppers and piping drains open.

Collection tanks must be dry.

## **ART. 18 EMERGENCY SITUATIONS**

In the event of an alarm due to fire, explosion or other accidents on board the ship or the Terminal and/or spillage of products, the operating procedures provided for in the "Terminal Emergency Plans" must be adopted.

The ship's master must immediately, and under his own responsibility, activate all fire, anti-pollution and safety measures for the protection of the ship and crew and to protect them from any potential danger; in addition, he must immediately stop unloading operations, stop the flow of LNG and immediately notify the Terminal.

Terminal personnel must go to the designated places and perform the procedures provided for in the instructions contained in the "Terminal Emergency Plans".

In the event of an alarm at the Terminal during the transfer of LNG from the ship, the Terminal must carry out the emergency stop procedure (which includes the immediate closure of the shut-off valves - ESD) and activate all fire, anti-pollution and safety measures as provided for in the "Terminal Emergency Plans".

## **ART. 19 EMERGENCY COMMUNICATIONS**

The Terminal must be equipped with marine VHF radio equipment, with related back-up, and must maintain continuous listening during commercial operations on VHF channel 16.

The Terminal must also be equipped with HF radio communication systems, telephone and fax.

Primary and emergency contact must be made on VHF channel 16.

Secondary contact can be made by telephone and fax.

Any emergency that occurs at the Terminal must be immediately reported to the operations room of the Coast Guard.

Any person who directly or indirectly becomes aware of damage or breakage to the underwater pipeline, pipes, joints or flanges, product leaks, equipment defects or malfunctions that may affect the safety of the landing equipment or other problems that may generate any potential risk, must immediately notify the OIM.

The ship's master and crew must immediately notify the Terminal of any event that may compromise or alter normal unloading operations or that, whatever the case, may reduce the safety of the ship and/or the Terminal.

Anyone who detects the start of a fire must immediately activate the fire alarm.

In the event of an accident, the procedures provided for in the Terminal Emergency Plans must be adopted.

## **ART. 20 MUSTER LIST**

On the Terminal, a muster list must be posted and kept updated by the terminal operator, also in the form of a manual, aimed at establishing the tasks of each person in the event of emergency, particularly in the event of fire on board and abandoning ship..

This document must be available at the most highly frequented points of the Terminal.

The muster list must be updated by the OIM whenever there is any change in the composition of the personnel on board.

The document must indicate, for each person, the point to go to, the place to be occupied and the tasks to be carried out in relation to:

- a) using means of communication;
- b) extinguishing fires;
- c) closing fire doors and ventilation dampers, stopping mechanical ventilation, shutting off electricity;
- d) the general preparation of rescue vehicles;
- e) rigging lifeboats;
- f) boarding people onto lifeboats and lowering the boats;
- g) rigging and launching rafts and other floating equipment;
- h) the muster list must also indicate the meeting points for personnel not directly engaged in dealing with the emergency.

The muster list must specify the signals for the different types of alarm and the names of the persons responsible and their replacements charged with ensuring that rescue and fire-fighting vessels are maintained in good condition and ready for immediate use.

An illustrative summary diagram must be permanently displayed at the points most frequented by the workers at the Terminal.

## **ART. 21 EMERGENCY DRILLS**

Each year, at maximum intervals of six months, the Licensee Company must arrange to carry out emergency drills and technical tests on the working order of equipment to guarantee staff training and to check the efficiency of existing fire-fighting equipment and other available equipment, including the roles and response capability of support tugs.

The methods and timing of this exercise must be agreed with the Coast Guard which, within 30 days prior to the date set for the exercise, must receive an initial framework describing the scenario to be simulated and the procedures to be activated. The purpose must be to test the ability to correctly apply the emergency procedures identified and designated by the terminal to the emergency teams, including communications with external authorities/bodies.

Complete rescue drills must also be arranged at least once every six months under the responsibility of the OIM. These exercises must be carried out in compliance with the safety of the operating personnel and must include the lowering and releasing of the lifeboats and a navigation test.

At all events, it must be ensured that all Terminal personnel have participated at least once in rescue exercises on lifeboats at least once every 12 months.

For exercises that have taken place, a detailed report must be drawn up to be transmitted within 30 days from the date of the same to the Coast Guard.

The remote emergency opening system of the mooring hooks must be tested periodically, with live cables, in such a way as to cover 100% of them over a period of 6 months. For hooks used by LNG tankers, the system must be checked simultaneously with the unmooring operations of the vessels. The results of these tests must be communicated by 30 June and 31 December of each year to the Coast Guard of Chioggia.

## **ART. 22 TERMINAL SAFETY EQUIPMENT**

The Terminal must be equipped with collective rescue vessels, boats and rafts, located and equipped in such a way as to ensure rapid and safe escape for personnel in the event of danger.

The aforementioned vessels must be able to accommodate at least twice the number of people present in the Terminal. The state of the maintenance of these vessels must be ascertained and checked with the appropriate frequency.

The Terminal must be equipped with approved lifebelts numbering not less than 110 percent of all persons on board. The lifebelts must be stored in an easily accessible place.

The Terminal must be provided with no fewer than two ring lifebuoys, equipped with a line of not less than three times the height of the terminal's deck above sea level, placed on the sides of the terminal and secured in such a way as to enable rapid release in the event of need.

Meeting places for emergencies and abandonment and the signals to be used to call personnel to the agreed places are set out in the "Station Bill".

The IOM assigns to each person the tasks to be carried out for each emergency event.

The "Station Bill", containing instructions for events requiring the forced abandonment of the terminal, must be posted at strategic points of the Terminal.

### **ART. 23 ACCOMMODATION AND OTHER REQUIREMENTS**

Rooms designated for accommodation must be separate from working areas and must not have direct access to enclosed places in which tanks and production equipment are located.

The rooms themselves must be connected by easy transit routes, which must be kept clear, to places where rescue equipment or other rapid escape devices are located.

They must also be sufficiently isolated from noise, ventilated, heated when necessary and adequately illuminated.

The living areas must be kept in a good state of cleanliness and tidiness. They must be sufficiently illuminated, ventilated or heated.

An adequate supply of drinking water and food must always be available.

A room must be provided for use as an infirmary, with first aid equipment and in particular with artificial respiration devices and stretchers for the transport of injured persons.

A person capable of providing first aid, as well as other persons capable of practicing artificial respiration to the injured, must always be present on the Terminal.

In addition to the normal personnel access or exit route, the Terminal must be provided with auxiliary means such as rigid ladders or other systems to enable the prompt abandonment of the terminal by personnel in the event of danger.

The route on the platform must be fenced with parapets. Walkways and work areas must not be slippery; passageways and stairs must be equipped with handrails.

The perimeter of the helipad must comply with the legal provisions and/or directives issued by the competent ministerial bodies and ENAV.

### **ART. 24 PERSONNEL CHANGEOVERS AND SUPPLIES**

Bunkering of LNG tankers is not allowed, either while moored at the Terminal or within the Safety Zone. It is forbidden to supply materials or provisions during commercial operations.

The embarkation and disembarkation of personnel on board LNG tankers within the "ATBA" area must be communicated in advance to the Terminal and the Coast Guard, and permitted by the latter in accordance with the maritime security provisions (*ship & port security*) in force. The ship's master is responsible for verifying the identity of all persons who board his ship.

At the request and under the responsibility of the ship's master, the Coast Guard and the Terminal may admit access on board moored ships, for work or other justified reasons, provided that commercial operations have not yet begun.

### **ART. 25 TRANSFER OF FUEL TO THE TERMINAL**

The transfer of fuel to the Terminal for use on the Terminal itself will take place through a dedicated transfer system.

The fuel will be transported and transferred using ships properly designed and certified for that service.

The vessel that transports and transfers the fuel must carry on board a sufficient number of oil sweeps ready for use to contain the area affected by any fuel spillage.

The transfer operation must at all times be adequately monitored by both the bridge and the supply vessel.

## **ART. 26 WASTE MANAGEMENT (HAZARDOUS AND NON-HAZARDOUS)**

All waste produced on board the Terminal must be taken on land through transshipment on a suitable seafaring vessel with authorisation to transport the waste, for subsequent delivery to appropriate waste reception facilities. Transshipment operations must not be carried out in the presence of an LNG tanker alongside the Terminal.

All waste delivered to the aforementioned seafaring vessel and/or delivered by the latter to the companies registered in the Register of Environmental Managers must be recorded in registers as specified by the MARPOL convention and/or by Italian legislation regarding waste management and transport. Receipts for the waste delivered must be kept for the time specified by the aforementioned legislation.

All appropriate precautions must be taken to prevent the accidental dispersion at sea, direct or indirect, of liquid and/or solid waste during transshipment of the same from the Terminal to the collection vessel.

## **ART. 27 RULES OF REFERRAL**

For anything not provided for in this Regulation, please refer to the Ministerial Decree of 2 August 2007 and, as far as applicable, to the current legislation on port and maritime security.

**ANNEX**

**ROUTEING MEASURES OTHER THAN TRAFFIC SEPARATION SCHEMES**

**ESTABLISHMENT OF AN AREA TO BE AVOIDED/MANDATORY NO ANCHORING AREA IN THE APPROACHES TO THE GULF OF VENICE**

(Reference chart: Italy 924.2005 edition.

*Note:* This chart is based on DATUM Rome 1940)

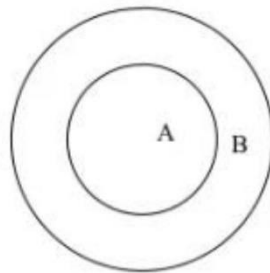
**(Description of an Area to be Avoided and Mandatory No Anchoring Area)**

(The co-ordinates listed below are in WGS 84 Datum)

**Area to be Avoided and Mandatory No Anchoring Area**

The area within the circle of 1.5 nautical miles centred on the following geographical position:

(1) 45° 05'.30 N 012° 35'.10 E



***Notes:***

A = Safety zone within a circle of 2.000 metres radius from the centre of the terminal.

B = Area to be Avoided/Mandatory No Anchoring Area within a circle of 1.5 nautical miles radius from the centre of the terminal (overlapping the safety zone).



## **ANNEX 2: RULES FOR PILOTING.**

Vessels of over 500 gross tonnage (GT) needing to enter or leave the ATBA area must make use of the pilot. Every seafaring vessel designated to this service at the Terminal, duly authorised by the Coast Guard in accordance with art. 3 of these Regulations, shall have the following characteristics:

- not less than 12 m overall length and 3 m width;
- ability to navigate at a speed of at least 18 knots;
- equipped with VHF, Radar system, sonar, GPS system and electronic cartography of the area;
- be registered in the RR.NN.MM. and GG.;
- be qualified for the special piloting service;
- be equipped with the necessary certifications for national coastal navigation, possibly limited but not exclusive to the performance of the activity at the Terminal.

The seafaring vessel used must be deemed suitable by the Coast Guard and any replacement must be previously authorised by the Coast Guard itself.

When seafaring vessels are temporarily unavailable, the Pilot may use tugs or other seafaring vessels made available by the Terminal with the authorisation of the Coast Guard.

The vessel must be kept in berth at Porto Levante or Chioggia.

The pilot on duty must wear the required badge, issued by the Maritime Authority.

The pilot, in carrying out his service, must comply with the provisions of the Maritime Authority. Ships bound for the terminal must take the pilot on board in the anchoring area denominated "CST", or at all events before entering the ATBA.

The Pilot must remain on board the LNG tanker throughout the time of its mooring at the Terminal and must always be in contact with the Master of the same to deal with any emergency situations or deteriorating weather conditions that may make it necessary to unmoor the ship.

In the event of any accident that may occur during piloting, the pilot must immediately notify the Maritime Authority.

In this case, the Pilot is obliged to draw up a report containing all elements needed to reconstruct the event along with the meteorological data.

In order to perform the service in question, the Pilot must be enrolled in the registers referred to in art. 90 of the Italian Civil Code, and provided with a personal identification card referred to in art. 128 Reg.c.nav.

### ANNEX 3: MOORING REGULATIONS

Ships of over 500 gross tonnage (GT) needing to moor at the Terminal must have a mooring crew, the professional suitability of which must be verified by the Coast Guard and accepted by the Terminal, and must meet the safety conditions of this Annex.

The mooring operation mainly involves the set of services needed to ensure the berthing of the ship; it begins when the mooring crew materially begin to carry it out and ends when the ship is permanently and safely moored according to the instructions of the Master on board.

The unmooring operation therefore involves the set of services needed to free the ship from its moorings; it begins from the moment in which the mooring crew materially begin to carry it out and ends when the ship is completely disengaged.

In order to perform the service, the crew must be provided with at least one motor boat with good stability, manoeuvrability, and characteristics that are suitable for working in the expected operating conditions and authorized to do so by the Coast Guard in accordance with art. 3 of these Regulations.

To this end:

- the deck areas must be of a size such as to enable the safe performance of the service;
- the seafaring vessels designated for this activity at the Terminal must be of the semi-displacement type and capable of navigating at a speed of at least 18 knots, equipped with a VHF system, Radar system, sonar, GPS system and electronic cartography of the area;
- the pulling capacity of the vessels must be sufficient to tow and manoeuvre the mooring cables and to extend these for at least 100 metres;
- the vessels must be registered in the RR.NN.MM. and GG and be in possession of certifications for national coastal navigation, possibly limited but not exclusive to the performance of the activity;
- the vessels must be piloted by personnel with the necessary titles and qualifications, and any replacement personnel must have the prior authorisation of the Coast Guard itself.

When operating at the Terminal, mooring crews must wear the required personal protective equipment and the minimum safety equipment referred to in the following list, which is by way of example and non-exhaustive:

- ✓ Non-slip footwear;
- ✓ Flame-retardant long-sleeved clothing;
- ✓ Helmet;
- ✓ Eye protectors;
- ✓ Work gloves;
- ✓ Life jacket;
- ✓ Explosion-proof portable VHF radio.

The presence of the vessel and its crew near the Terminal is mandatory for the entire duration of mooring and unmooring operations.

Two members of the mooring crew must remain on board the Terminal throughout the ship's unloading operation.

The revenues and costs of the mooring activity relating to the Terminal must be recorded with accounting data that is separate from the revenues and costs relating to other activities carried out by the mooring groups to which the members of the crew belong, and must be made available to the Maritime Authorities concerned upon request.

The mooring crew must comprise at least 8 (eight) members for mooring operations and 4 (four) for unmooring operations.

In order to carry out the service in question, members of the mooring crew must be enrolled in the registers referred to in art. 208 Reg.Nav.Mar. and authorised to take on this assignment by the Coast Guard of their port of origin, and must obtain "clearance" from their Group Leader.

Before being permitted to carry out this service at the Terminal, each member of the mooring crew must be suitably instructed and trained for the relevant requirements and authorized by the Coast Guard upon approval of the adequacy of the training programme undergone.

#### **ANNEX 4: RULES FOR TOWING**

All Ships mooring and unmooring at the Terminal must be assisted by tugboats that are approved by the Terminal, authorised by the Coast Guard, and that meet the safety conditions set out in this Annex.

The number of tugboats and the bollard pull must be not lower than set out in the Terminal regulations, as shown in the following table:

<b>Vessel type</b>	<b>Minimum number and bollard pull of tugboats for mooring operations</b>	<b>Minimum number and bollard pull of tugboats for the unmooring operations</b>
Conventional type gas tankers	4 x 65ton (average bollard pull between bow and stern)	4 x 65ton (average bollard pull between bow and stern)
Q-FLEX-type gas tankers	4 x 65ton (average bollard pull between bow and stern)*	4 x 65ton (average bollard pull between bow and stern)*
Other vessels	To be established by appropriate technical Coast Guard committee.	To be established by appropriate technical Coast Guard committee.

\*Exclusively within the operational limits referred to in table 2 of art. 6. Where the strength of the wind while a ship is moored is higher than the parameters indicated under the conditions of the aforementioned Article 6, an additional tugboat with characteristics at least equal to the four already in use must be available in the area.

While a ship is moored, all tugboats must remain near the Terminal ready to assist the same.

At least two tugboats must remain in the immediate vicinity of the vessel and be available to provide assistance for unmooring and/or firefighting support within 10 minutes.

The other tugs must remain at such a distance as to be available within a short time.

Any temporary and exceptional removal of even one of the aforementioned vessels must be duly authorised by the Coast Guard of Chioggia, subject to the approval of the Pilot on duty, the IOM and the Master on board.

The tugboats will be for the exclusive use of mooring operations of LNG tankers at the Terminal and must remain near the Terminal carrying out surveillance throughout a ship's unloading activities.

The tugboats will provide assistance in the event of an unscheduled departure of an LNG tanker and in the event of fire.

Tugboats on standby, in possession of a regular permit certificate issued by the Port System Authority of the Northern Adriatic, will be stationed in the port of Chioggia as compatible with the sluice opening times of the Mo.Se System.

The company providing the towing service must make available a minimum number of 4 tugboats with the following minimum characteristics:

- Naval classification registers in line with European regulations;
- TUG ESCORT classification - SALVAGE TUG - UNRESTRICTED NAVIGATION - FIRE FIGHTING SHIP 1 / WATER SPRAYING or equivalent;
- At least 2 engines receiving motive power from separate diesel engines;
- Ability to reverse the thrust by 180 degrees in less than 15 seconds;
- Pulling capacity equivalent to 65 tons, both towing and pushing;
- Firefighting capacity equivalent to Fire Fighting 1;
- 360-degree visibility from the bridge;
- VHF system, radar, marine GPS system and electronic mapping of the area.

All vessels must be piloted by personnel possessing the necessary titles and qualifications and must be equipped with the necessary on-board equipment.