LNG Carrier Vetting Procedures Terminale GNL Adriatico S.r.L

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1.0 Introduction

Overview	
Introduction	The Terminale GNL Adriatico S.r.l. (Adriatic LNG or ALNG) <i>LNG Carrier Vetting Procedures</i> document provides for the approval process of LNG Carriers nominated to berth, deliver, and unberth at the Terminal.
	This chapter describes the scope and purpose of this document. It also contains other basic information, such as who the intended users are, how the document is organized, and who owns it.
In this chapter	This chapter contains the following information:
	1.1 Using This Document1-2
	1.2 Regulatory Requirements1-3

1.1 Using This Document

Purpose	This document provides guidance for the approval process for LNG Carriers nominated to call at the Terminal.
Scope	This document describes the approval process for all nominated LNG Carriers to make deliveries at the Terminal. This document does not apply to other vessels, such as supply vessels.
Users	 The primary users of this document are ALNG Operations personnel, ALNG Commercial Group personnel, and prospective shippers to the Terminal. Individual users include: Operations Manager Commercial Manager Offshore Installation Manager Marine Superintendent Terminal re-gasification capacity Users LNG Carrier Owners/Charterers and Operators
Document organization	 Document organization follows these guidelines: This document is organized by chapters, which are divided by labeled tabs. The Table of Contents in the front of the document lists chapter titles and the sections and topics of each chapter. Each chapter includes a table of contents that lists the sections and topics within that chapter. In each section or topic, the information is clearly labeled with margin headings that appear in the left margin of each page. To find specific information, locate the pertinent chapter and section or topic, and then scan the headings down the left margin of the page.
Document Owner	The ALNG Operations Manager has overall custody and is responsible for any subsequent changes made to the <i>LNG Carrier Vetting Procedures</i> .
Changes/Amen dments	ALNG can change, amend, and update this document at any time without incurring any liability whatsoever.

1.2 Regulatory Requirements

Acts and regulations

For example but not limited to :

- Article 5 of Maritime Safety Regulations Order n.63/2008 issued by the Chioggia Harbor Master on September 2nd 2008 as updated time-to-time.
- Authority for Electricity and Gas, resolution n. 167/05 dated 1st August 2005.

2.0 General Information

Overview

Introduction	This chapter provides an overview of the LNG Carrier approval process.		
In this chapter	This chapter contains the following information:		
	2.1 General Information on LNG Carrier Approval Procedures		
	2.2	Structure of the Process	

2.1 General Information on LNG Carrier Approval Procedures

Introduction The purpose of these vetting/approval procedures is to establish a structured process that evaluates LNG Carrier's capability to safely and efficiently deliver the cargo. This is referred to as the approval process and consists of two discrete activities:

- Compatibility with the terminal (covered in Chapter 3 of this document)
- Quality Assurance of the vessel and the vessel operator (covered in Chapter 4 of this document)

The LNG Carrier approval process includes the following tasks:

- Check of the physical characteristics of LNG Carrier against terminal's and cargo requirements (Terminal Compatibility process)
- Assess the capability of the LNG Carrier to perform to predefined safety and environmental standards (Quality Assurance process)

Only those LNG Carriers which have successfully gone through both streams of the approval process will be approved by ALNG for unloading LNG at the terminal.

Note: Vessel performance is monitored to ensure that the required performance levels are being maintained.

The approval procedures established by ALNG principally is consistent with:

- Existing international rules and regulations, implemented by the flag state of the LNG Carrier or the port state of the Terminal.
- Industry forum recommendations such as OCIMF (as published at http://www.ocimf.com) and SIGGTO (as published at http://sigtto.reinvent.net/DNN/) or GIGNL (as published at http://www.giignl.org/).

These procedures, including inspections, also address specific aspects pertaining to:

- Safety and security at the berth
- LNG cargo particularities and LNG Carrier during unloading operations
- Crew qualifications
- Understanding the terminal safety and operational procedures

References:

- Chapter 3, "Compatibility Approval Steps"
- Chapter 4, "Quality Approval Process"

2.2 Structure of the Process

Introduction Each LNG Carrier proposed for unloading at the ALNG terminal undergoes a quality assurance (vessel vetting) process. This comprises of an assessment of the LNG Carrier plus an assessment of the carrier's operator. The process steps are listed in the following table.

Task	Action	
1.	Exchange preparatory information.	
2.	Ship-shore interface Study.	
3.	Ship Safety Inspection.	
4.	Unloading Test and approval.	
5.	Ship Approval on follow-up.	

3.0 Compatibility Approval Steps

Overview

Introduction	This chapter provides detail on the steps used to approve compatibility.		
In this chapter	This	chapter contains the following information:	
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	3.2	Step 2 - Ship/Shore Interface Study	3-4
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3.1 Step 1 - Preparatory Information

Objective The main objective of Step 1 is to gather all necessary material (for example, information, data, drawings) to conduct the ship/shore interface study (compatibility study).

InformationWhen ALNG receives a request to unload LNG at the Terminal from a LNG Carriersubmitted bynot listed on the ALNG Acceptable Vessel/Terminal Compatibility List, ALNG sendsALNGthe documents described in the following table to the requestor.

Document	Description
Society of International Gas Terminal Operators (SIGTTO) Ship/Shore Questionnaire for Compatibility of Liquefied Gas Ships with Loading/Unloading Jetties	This document provides details on mooring and manifold arrangements, loading arm and gangway data, and other Terminal aspects required to conduct a Ship/Shore compatibility study.
Terminal Regulations and Information Manual	This document includes information and procedures (shore part) pertaining to safety and operational requirements at the Terminal that is necessary to, for example but not limited to, fill out the International Maritime Organization (IMO) checklist at the Unloading Port.
Cargo Handling Manual	This document describes the procedures for cargo handling.

Note: Users must retrieve port information related to marine aspects for access and berthing at the Terminal directly from the Port Authority in Chioggia (Italy).

InformationListed below is the information that the user must send to ALNG before thesubmitted byShip/Shore Interface Study is performed as part of the approval procedure applicationthe Userassociated with user's application:

Item	Description
Ship/Shore Interface Plan	This document, if available (for example, new ships contain this item), is provided as per the <i>SIGTTO Paper #5</i> , "Communication Necessary for Matching Ship to Berth."
	If it is not available, the user submits the following documents:
	General Arrangement
	 Manifold layout
	 Mooring arrangements
	 Parallel body Flat body line (parallel mid body) of the LNG Carrier drawing
	 Details of the landing area for the shore gangway
	Reference: SIGTTO Paper #5

Continued

Step 1 - Preparatory Information, Continued

Item	Description
SIGTTO Ship/Shore Questionnaire	The user must submit a completed SIGTTO Ship/Shore Questionnaire for Compatibility of Liquified Gas Ships with Loading/Unloading Jetties.
Ship Questionnaire	The questionnaire is completed according to the SIGTTO form "Ship Information questionnaire for Gas Carrier" 1998, 2nd edition. Alternatively latest copy of OCIMF Vessel Particular Questionnaire (VPQ) may be provided.
Certified Custody Transfer Measurement System description	Description of the LNG Carrier Custody transfer system and certificate of accuracy.
Tank Gauge Tables	User must provide approved copies.
Ship Operational and Safety Procedures while Alongside	Procedures pertaining to the International Safety Management (ISM) code addresses:
	 Mooring Cargo transfer Fire fighting Complete the information for the ship part necessary to complete the
	IMO checklist.
List of Survey Status	This is issued by the Classification Society for an LNG Carrier.
Inspection Reports	The user must provide the latest copies of these inspection reports:Classification SocietyPort State Control (Paris MoU).
Certificate of Entry	The Certificate of Entry must be with a registered Protection & Indemnity (P&I) Club.
Departure Plan (Membrane Vessels)	A safe condition departure plan in event LNG Carrier is required to depart the Terminal prior to cargo completion. Reference: <i>Terminal Regulations and Information Booklet</i>

Information submitted by the user, continued

3.2 Step 2 - Ship/Shore Interface Study

Introduction In order to verify both the technical compatibility and the operational aspects, it is important to determine that both the LNG Carrier and ALNG acknowledge each other's operating procedures. This is possible after reviewing of all documents exchanged under Step 1. Document After examining the information received in Step 1, ALNG performs an interface study to establish technical acceptability of the LNG Carrier at the Terminal. The analysis interface study conclusions are provided to the user or the user's designated representative. In particular, ALNG checks the following minimum criteria: Physical and technical compatibility with the Terminal dimensions Nautical and safety aspects Compliance with Terminal communication link and ESD system • Certification of gauge tables¹ covering all cargo tanks in the LNG Carrier and Custody Transfer Measurement System² Note: 1Certification of gauge tables are approved by the relevant authorities and by ALNG before the first unloading. This certification must be carried out by a gualified organization (for example, the Japanese NKKK). Note: 2Custody Transfer Measurement system specifications and methods must comply with the latest recommendations of the GIIGNL LNG Custody Transfer Handbook **Reference:** *GIIGNL LNG Custody Transfer Handbook* Mooring The LNG Carrier Operator prepares a proposed mooring arrangement and mooring arrangement calculation. Upon receiving the mooring arrangement, ALNG issues, for operational purposes only, a drawing of the approved mooring arrangement for the specific LNG Carrier.

Continued

Step 2 - Ship/Shore Interface Study, Continued

Preliminary ship/shore interface meeting Following the completion of the document analysis, a Preliminary Ship/Shore Interface Meeting may be called. This is attended by representatives of the LNG Carrier Owner, Charterer and Terminal, in order to examine berth, Ship-Shore Interfaces, safety and communications items in relation to the LNG Carrier and the Terminal.

The minimum agenda of the Preliminary Meeting is:

- Review of Interface Study conclusions.
- Review all parameters of the Ship Shore Safety Plan completion. This includes the documents dealing with safety and security, such as fire fighting, cargo transfer, and mooring. All this is checked and, if necessary, adapted.
- Cargo tank custody transfer management
- Agent assignment and tasks.

Note: Any LNG Carrier that successfully completes Steps 1 and 2 is considered a 'compatibility pre-approved' LNG Carrier for its initial voyage to the Unloading Port, subject to a successful vetting analysis (see Chapter 4)

References:

- See Appendix A, "Topics for Preliminary Meetings" for an informative list of topics to address during the Preliminary meeting.
- Chapter 4, "Quality Approval Process"

3.3 Step 3 - Ship Safety Inspections

Introduction ALNG may require, at any time and at its own discretion, an LNG Carrier inspection prior to the first berthing. This inspection is performed by an ALNG endorsed inspector and is done according to the inspection guidelines accepted by ALNG.

These inspection guidelines are consistent with the Oil Companies International Marine Forum (OCIMF) inspection guidelines and SIGTTOs latest recommendations for crew safety standard and training on LNG Carriers.

Step	Who does it	Action
1.	Inspector	The Inspector hands over a list of remarks and/or deficiencies, arising from such inspection, if any, to the Master of the LNG Carrier at an exit meeting held onboard the LNG Carrier.
2.	ALNG	Sends the list of remarks and/or deficiencies to the user.
3.	User	The user forwards them to the LNG Carrier Operator and/or the Charterer.
4.	ALNG	Upon receipt and review of the implementations of corrective actions, ALNG decides whether to receive the LNG Carrier at the terminal.
5.	User	The user promptly notifies or procures that ALNG is notified if any of its LNG Carriers, pre-approved or approved according to this vetting procedure, have been rejected or have failed a ship safety inspection at another LNG terminal.
6.	User	The user provides ALNG with all relevant technical details and information in that respect.

The following table describes the ship safety inspection process.

3.4 Step 4 - Unloading Test and Ship Compatibility Approval

Introduction Depending on the outcome of the previous steps, an LNG Carrier is deemed either technically approved or approved pending corrective action, for a single cargo unloading, subject to successful voyage screening – (see Chapter 4) which constitutes the Unloading Test. Otherwise, the LNG Carrier is rejected.

Reference: Chapter 4, "Quality Approval Process"

Unloading test If the LNG Carrier is approved pursuant to steps 1, 2 and 3, a single cargo unloading is permitted and conducted.

During unloading, the LNG Carrier undergoes the Unloading Test. This determines whether the LNG Carrier crew understands the Terminal interface and establishes ship/shore compatibility.

Before unloading the LNG cargo, a pre-discharge meeting is held on-board. During this meeting, the following occurs:

- A review of the Terminal Regulations and Information manual is completed in order to have a understanding of the Terminal requirements, including but not limited to:
 - Mooring, piloting and towing; and
 - Fire fighting; and
 - Cargo transfer; and
 - Cargo tank management; and
 - Unloading communication; and
 - Operational procedures
- A Terminal Regulations and Information manual is signed by the LNG Carrier's Master and ALNGs representative duly authorized to fulfill this function.
- The LNG Carrier's Master and ALNGs representative duly authorized to fulfill this function checks and signs the "IMO Ship/Shore safety checklist and guidelines"

Upon completion of these actions, the LNG cargo delivery can take place.

Continued

Step 4 - Unloading Test and Ship Compatibility Approval, Continued

LNG Carrier compatibility approval procedure conclusion Depending on the findings of the Unloading Test, ALNG determines if an LNG Carrier is technically compatible and suitable for unloading at the Terminal. ALNG advises if:

- The LNG Carrier is approved for a 36 Months approval period, without being subjected to further Unloading Tests.
- The LNG Carrier is accepted in future for another Unloading Test pending implementation of corrective action to the LNG Carrier provided by ALNG.
- The LNG Carrier is not accepted in future at the ALNG Terminal (without completion of the full approval procedure).

Any approval or conditions is based upon the LNG Carrier's state at the moment of the approval or condition definition. In case of change in the commercial, technical capabilities or specification, the LNG carrier shall, as soon as practical, notify the change to ALNG. Based on the change assessment it is ALNG option to review its approval or condition.

3.5 Step 5 - LNG Carrier Compatibility Approval Follow-Up

Introduction

Before and during each call at the Terminal, the User must provide timely assistance to ALNG, to clarify and solve any urgent issues that arise before or during each call of one of user's LNG Carriers.

The User must keep ALNG informed of any modifications to the LNG Carrier, or any changes in its condition or maintenance status related to technical, safety and/or managerial issues. Based on these modifications, ALNG assesses if the LNG Carrier requires a new approval.

ALNG may require additional safety and technical inspections, in order to check the continued compliance of the LNG Carrier with safety and operational requirements of the Terminal. These inspections, at ALNG option, may occur during the berthing time or at any other time and place.

Reference: Section 5.4, "Terminal Feedback Reports"

4.0 Quality Approval Process

Overview

Introduction	This chapter provides the process for quality approval of LNG Carriers nominate call at the ALNG terminal.		
In this chapter	This	chapter contains the following information:	
	4.1	Quality Vetting Requirements	4-2
	4.2	Rejected LNG Carriers	4-3
	4.3	The Elements of Quality Vetting	4-5

4.1 Quality Vetting Requirements

Introduction	ALNG requires that all LNG Carriers, prior to calling at the terminal, must have a quality vetting approval. This is referred to as a <i>Carrier screening</i> .		
	A quality assurance organization, appointed by ALNG, provides the quality vetting service.		
	The quality assurance organization currently contracted and paid by ALNG is the <i>International Marine Transportation Limited</i> (IMT). It is ALNG option to change the quality assurance organization. In case of change of quality assurance organization, ALNG will notify the change to interested LNG Carrier Operator.		
Quality Vetting Pre-	IMT reviews the LNG Carriers nominated to call at the terminal during the initial ship to shore compatibility checks for the quality of the LNG Carrier and it's operator.		
approval	ALNG reviews IMT's recommendations and, if found acceptable, the LNG Carrier is <i>pre-qualified</i> by ALNG for call at the terminal.		
	Full acceptance for technical compatibility is not met until the LNG Carrier successfully completes the compatibility approval steps and an unloading test.		
Not approved vessels	LNG Carriers assessed via the screening process as <i>Not Approved</i> in the base case are not accepted for delivery of cargo to the terminal and ALNG requests that users propose an alternate LNG Carrier.		
	Note: It is advised that LNG Carrier nominations are made with sufficient lead time to allow for the potential need to find an alternate LNG Carrier.		
Pre approval period	ALNG understands that prospective users must demonstrate that they have access to acceptable LNG Carriers to subscribe for terminal capacity. The quality pre-qualified period is for 36 months.		
Voyage by voyage screening	ALNG requires that IMT screens every LNG Carrier prior to each cargo loading for delivery to the terminal. IMT confirms that the LNG Carrier and its operator quality are acceptable.		
	The user must advise ALNG in a timely manner (with respect to the cargo loading dates) so that they can complete the screenings prior to the LNG Carrier loading.		
	Approval to call at the terminal may be rescinded at ALNG option if more recent and adverse information becomes available with respect to the LNG Carrier in route to the terminal.		

General	LNG Carriers that fail to:
	Pass the vetting analysisMeet the IMT MESQC requirements
	Are assessed as Not Approved.
	Reference: Section 4.3, "The Elements of Quality Vetting"
	IMT will motivate the rejection decision.
	LNG Carriers assessed via the vetting process as <i>Not Approved</i> in the base case are not accepted for delivery of cargo to the terminal and ALNG requires that the user propose an alternate LNG Carrier.
Vessels on Subjects	<i>Subjects</i> are conditions on an LNG Carrier that potentially affecting it's performance. These may be identified during the SIRE inspection evaluation, as a result of a Vessel Performance Report from other re-gasification terminals, or originate from some other source. When appropriate, the LNG Carrier Operator is informed of the <i>subjects</i> , which remain in place until IMT receives a satisfactory response.
	In cases where there is no response to the <i>subjects</i> highlighted, if the <i>subjects</i> are deemed significant, IMT recommends to ALNG that the LNG Carrier is <i>Not Approved</i> until the subjects have been cleared. This normally requires some discussion or documented evidence between the Carrier Operator and IMT. If, however, the <i>subjects</i> are minor, IMT may evaluate and recommend the LNG Carrier as " <i>Approved-Subject toxxx.</i> ." with the <i>subjects</i> to be cleared before use or by a later date.
	<i>Subjects</i> can also arise even where there are no actual deficiencies (for example, non- compliance items with the MESQAC) on the LNG Carrier. IMT may recommend that the LNG Carrier Operator comply with certain guidelines or regulations, or take special precautions for a particular set of circumstances arising from the intended use of the LNG Carrier.

4.2 Rejected LNG Carriers

Continued

Rejected LNG Carriers, Continued

Vessels on hold Any LNG Carrier may be placed *on hold* for a number of technical or operational reasons. As a consequence, an LNG Carrier is designated *Not Approved* to call at the ALNG terminal until the reasons for the *hold* are adequately addressed.

The reasons an LNG Carrier may be placed *on hold* include, but are not limited to, the following:

- The LNG Carrier is involved or has been involved in a pollution, collision, fire/explosion, or grounding or similar type incident.
- The LNG Carrier is judged to present an unacceptable safety and/or environmental risk.
- The LNG Carrier operator's performance/policies are judged to present an unacceptable safety and/or environmental risk.

ALNG shall not be liable for any cost, loss or expense incurred by the LNG Operator, the LNG Carrier for the *on hold* decision.

4.3 The Elements of Quality Vetting

Elements	In vetting the LNG Carrier, the quality assurance organization uses a variety of data such as, but not limited to:
	 The most recent SIRE Vessel Inspection Questionnaire (VIQ) Previous LNG Carrier inspection history LNG Carrier history Prior performance at the terminal Prior performance at other re-gasification terminals Outstanding technical issues on the LNG Carrier Classification Society records relating to the vessel Port State Inspection Assessment of the LNG Carrier operators Management Systems—(TMSA) including audit findings Structural reviews Casualty/Incidents Industry Intelligence Compliance with IMT's Marine Environmental Safety and Quality Assurance Criteria (MESQAC)
MESQC	The MESQC booklet prepared by the quality assurance organization is available to all vessel Operators. The primary purpose of the document is to outline the Safety and Environmental and Quality Assurance standards required supplemental to those defined by Statutory Regulations.
	In addition, it covers areas such as compliance with the Drug and Alcohol policy, quality assurance organization inspection process and incident reporting.
	LNG Carrier Operators must acknowledge and familiarize themselves with the MESQC.
TMSA	As part of the vetting analysis, quality assurance organization evaluates the Tanker Management Self Assessment submission made by the LNG Carrier operator.
	All LNG Carrier Operators nominated to call at the ALNG Terminal must submit a TMSA report to OCIMF and release it to the quality assurance organization. This report is valid for 12 months but may be updated at anytime during this period.
	The quality assurance organization maintains a rating format for all LNG Carrier Operators. This rating is based on Operator performance supplemented with an analysis of TMSA reports, as well as any audits of the LNG Carrier operator's safety management system.
	Reference: OCIMF Tanker Management Self Assessment Program (TMSA)

5.0 Ship Inspection Report Program (SIRE) Inspections

Overview

Introduction	This chapter provides an overview of the inspection process, feedback reports and incident reporting requirements.	
In this chapter	This chapter contains the following information:	
	5.1 Overview of SIRE and Application to Terminal	
	5.2 SIRE Inspections	
	5.3 Incident Reporting	
	5.4 Terminal Feedback Reports5-5	

5.1 Overview of SIRE and Application to Terminal

Introduction SIGTTO recommends that the SIRE inspection process is used for quality inspections of LNG Carriers.

SIRE is an established, nonprofit, proven system, based on the marine expertise and experience of OCIMF members. More information are available at: http://www.ocimf.com/tree_browse.cfm?action=sire_programme.

The SIRE Vessel Inspection Questionnaire (VIQ) is a continuously improved document that provides a structured and factual reporting process.

SIRE inspectors are accredited to ensure that they have an appropriate level of experience and qualification.

Reference: SIGTTO, Ship Vetting and its Application to LNG

5.2 SIRE Inspections

SIREThe LNG Carrier Operator ensures that a current SIRE Vessel InspectionInspectionQuestionnaire for the LNG Carrier is available. The LNG Carrier Operator is
responsible for arranging an inspection at least every 12 months. The Operator must
promptly submit any responses relating to observations raised during the inspection to
the OCIMF SIRE system. This enables the comments to be considered during any
subsequent LNG Carrier vetting.The Operator ensures that the LNG Carrier is presented in a suitable condition for

The Operator ensures that the LNG Carrier is presented in a suitable condition for inspection. In assessing the suitability of the LNG Carrier, IMT considers both the current and previous inspection results.

References:

- IMT MESQAC
- OCIMF SIRE VIQ

5.3 Incident Reporting

Requirements In line with TMSA guidance, LNG Carrier Owners and Operators must maintain an internal incident and near-miss reporting and recording system. Using this system, they can record "lessons learned" and take necessary preventative actions.

The LNG Carrier Operator must as soon as practical advise ALNG and/or IMT of any incidents or accidents sustained by or on the LNG Carrier. The reporting requirement is for all activities that the LNG Carrier undertakes (not just those activities that are exclusive to ALNG).

Quality assurance organization evaluates such information in conjunction with ALNG as part of the vetting requirements.

All incidents reported to ALNG and/or quality assurance organization by the LNG Carrier Operator, or obtained through media/other industry sources are recorded.

IMPORTANT: Carrier Operators must undertake their own internal investigation to determine prime and root causes of the incident, and take corrective action to prevent recurrence.

Following an incident (wherever it takes place), the LNG Carrier, at ALNG option, may be placed on hold (for example but not limited to, prevented from berthing at the terminal) until ALNG reviews the incident report and makes a determination that the LNG Carrier remains accepted. ALNG shall not be liable for any cost, loss or expense incurred by the Carrier Operator or the LNG Carrier for such *on hold* decision.

5.4 Terminal Feedback Reports

FeedbackFor all LNG Carrier calls at the terminal, ALNG completes a *Terminal Feedback*ReportForm and forwards it to the quality assurance organization.

ALNG's representative completes this form during the post transfer conference and advises the LNG Carrier Master of any issues a rising from the LNG Carrier's call at the terminal. These issues are included in the report.

Reference: Section 3.5, "Step 5 - LNG Carrier Compatibility Approval Follow-Up"

The report is one of the elements considered by quality assurance organization during the vetting analysis for an LNG Carrier nominated to call at the Terminal. Use of the report is limited to the ALNG and quality assurance organization and is not shared with other third parties.

In cases of a negative feedback reports, or where ALNG indicates that the LNG Carrier performance is unacceptable, quality assurance organization notifies the LNG Carrier Operator and seeks details of actions taken by the Operator to rectify the identified issues.

ALNG may place the LNG Carrier on hold until the concerns have been adequately addressed by the Carrier Operator and reviewed by quality assurance organization and ALNG. ALNG shall not be liable for any cost, loss or expense incurred by the Carrier Operator or the LNG Carrier for such *on hold* decision.

6.0 Ship/Shore Compatibility

Overview

Introduction	This chapter provides details of Terminal compatibility information and specific additional requirements for LNG carriers calling at the ALNG Terminal.
In this chapter	This chapter contains the following information:
	6.1 Specific LNG Carrier Requirements for the ALNG Terminal

6.1 Specific LNG Carrier Requirements for the ALNG Terminal

Requirements There are specific requirements that apply to LNG Carriers calling at the ALNG terminal.

ALNG includes these requirements as part of the LNG Carrier compatibility review process and ALNG acceptance. The requirements are:

- Head, Stern and Breast line wire or HMPE mooring lines must be fitted with 22-meter polyester mooring tails. Certificates and inspection data must be available to the ALNG's Representative on request. LNG Carrier Operators are required to confirm that this requirement is met prior to approval.
- Departure Plan, Reference Terminal Regulations and Information Manual
- LNG Carrier must be fitted with 60 mesh manifold loading strainers, as per SIGTTO *Recommendations for the Installation of Cargo Strainers on LNG Carriers*, 2nd Edition 1992.
- Collapsible or removable handrails at the manifolds to allow use of the Loading Arm cable connection guidance system.

Reference: SIGTTO Recommendations for the Installation of Cargo Strainers on LNG Carriers, 2nd Edition 1992.

A. Topics for Preliminary Meetings

Introduction This appendix provides a list of discussion topics for a preliminary meeting.

Торіс	Description
LNG Custody Transfer	Items to address for this topic are:
checklist	 Buyer/Seller obligations and rights
	 Risk Coverage (insurance)
	 Standards and units of measure
	 LNG quality specification (compatibility with pipeline gas quality limitations
	 Wooble index
	• HHV
	 Nitrogen content (less than 1 mol %?)
	 Contaminants
	 Sulphur and mercury compounds
	 Impurities
	 Quality determination method
	 Boil-off gas handling
	 LNG measurement
	 Actions under deviation
LNG Carrier	Items to address for this topic are:
	 General arrangement of ships deck, clearly indicating mooring winches, bollards, and so on
	Permanent communication channels onboard, for example:
	– (Inmarsat) telephone numbers
	– Fax numbers email
	 Exact geometric volume of each cargo tank necessary for custody transfer calculations
	 LNG Terminal (information for the LNG Carrier) including maximum dimensions of LNG Carrier
Port User/Operator	Items to address for this topic are:
	 Port Authority, contact person(s)
	 Ships agent
	 Transportation to from LNG Carrier, (storing and crew changes)
	 Procedures for arranging of Pilots
	 Mooring crews
	 Tugs

Continued

Topics for Preliminary Meetings, Continued

Торіс	Description
Pilotage / Berth approach	Items to address for this topic are:
	Communications
	 Pilot boarding
	 Number of tugs
	 Mooring arrangements.
Ship/Shore safety interface	This topic concerns emergency procedures and operational interfaces:
	Contingency planning with a representative of Carrier Operator.Communications
	 Emergency response communications and liaison, including Public Affairs response
Instrumentation Interfaces	Discuss the location and connector specifications for the umbilical communication systems (for example, Pyle National connector and /or pneumatic ESD and /or optical connector) for ESD systems and the mooring tension monitoring system.
Mechanical Interfaces	Items to address for this topic are:
	 Loading arm arrangements, including:
	 Flange location and size
	 Mesh requirements
	 Cable guided system
	 Gangway location size and arrangement
Ship/Shore safety checklist	Check and confirm:
	 Safety interfaces
	 Procedures
	• Equipment
	 Safety tests (For example, the ESD test before start of unloading
	operation)
Cargo transfer	Discuss cargo transfer arrangements
arrangements	Offloading rates
	Cool-down
	Vapor return
Other information	Any other relevant information that exists meeting time.

B. Gap Identification

OverviewIntroductionThis appendix provides a consolidated list of information that was not available at this
stage of development. A process will be undertaken to locate this information and
include it in the final, published version of the manual by facility startup.GapsThere are no gaps in this document at this time.

Glossary

Terms, The following terms, abbreviations, and acronyms are used throughout this document.

and acronyms

Term	Description
ALNG	Terminale GNL Adriatico S.r.L. (Terminal Operating Company)
GIGNL	International Group of LNG Importers
IMT	International Marine Transportation Ltd (Vetting Service Provider)
LNG Carrier	The term LNG Carrier is used throughout this document but may also be commonly referred to as the:
	LNG TankerLNG Ship
MESQAC	IMT Marine Environmental Safety and Quality Assurance Criteria
OCIMF	Oil Companies International Marine Forum
SIGTTO	Society of International Gas Tanker and Terminal Operators
SIRE	The OCIMF Ship Inspection and Reporting system
terminal	The LNG receiving facility, including berth area and other facilities within the 2000m exclusion zone and Terminal management designated by ALNG. Such management includes the person or persons (and his/their deputies and assistants) authorized by ALNG to exercise the powers or perform the duties related to making and enforcing regulations, administration and control of the plant and berths.
TMSA	Tanker Management Self Assessment Program
User	Any person to whom re-gasification capacity is allocated and to whom the Operating Company provides the Service pursuant to a Capacity Agreement entered into between such person and the Operating Company.
Carrier Master	Captain of a LNG Carrier
Carrier Operator	Technical Operator responsible for the operation and manning of the LNG Carrier
VIQ	SIRE Vessel Inspection Questionnaire