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**GRAIN LNG POLICY FOR  
SHIP VETTING AND APPROVAL**

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**FOREWORD**

This Policy was approved by Simon Culkin, GLNG Terminal Manager for use by managers, engineers and supervisors in Grain LNG (GLNG). *Minor changes will be approved by the relevant Manager as appropriate.*

Approval Date: 21.06.2022

Implementation Date: 21.6.2022

Review Date: 21.06.2025

GLNG documents are revised, when necessary, by the issue of new editions. This issue cancels and supersedes all preceding issues of the document. Users should ensure that they are in possession of the latest edition by referring to the documents available on the GLNG intranet

Compliance with this document does not confer immunity from prosecution for breach of statutory or other legal obligations.

**BRIEF HISTORY**

Edition	Approval Date	Changes	Author	Approver
1		Initial issue of document		
2	14/12/2011	Reviewed at review frequency and updated to new policy format.	Simon Richardson & Roy Thomas	Oliver Wood (via PPSG)
3	23//07/2013	New format. Insertion of "shall" and "should" terms to replace more ambiguous terms. Clarification of acronyms	R Thomas, M Astbury	Simon Culkin (post PPSG)
3.1	10.07.14	Change from best practice to mandatory requirement in 4.2.1.	R Thomas	Matt Astbury
3.2	02.12.14	Additional clause b) inserted into 4.1.1.	R Thomas	Matt Astbury
3.3	16.07.15	Doc reviewed – no change required.	R Thomas	Matt Astbury
3.5	08.05.2017	Section 4.1: Minor change from 30 days' notice to "in good time" to allow for flexibility in traffic to site for operations. Minor formatting changes to whole document.	R Thomas	Ed Carter
3.6	9/10/2019	Amendment of section 4.1.5 and 4.2.4 (now s4.3) to make correct. Sections that were 4.2.4-4.2.14 were split into their own sections to make the document clearer.	R Thomas	Ed Carter
4	21/06/2022	Periodic review, no changes made	R Thomas	Ed Carter

**KEY CHANGES**

Section	Amendments
All	Doc reviewed – no change required

**RISK TO BUSINESS PERFORMANCE**

Identified Risk to Business Performance Rating	Medium (3 yearly review)
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**AFFECTED DEPARTMENTS**

Departments covered by this procedure	Marine
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**DISCLAIMER**

This document is provided for use by GLNG and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

**MANDATORY AND NON-MANDATORY REQUIREMENTS**

In this document:

**Shall:** indicates a mandatory requirement.

**Should:** indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

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**GLNG POLICY FOR****SHIP VETTING AND APPROVAL****1. PURPOSE**

- 1.1 National Grid Grain LNG is responsible for all operations at the Grain LNG Importation Terminal. LNG is brought to the terminal in LNG Tankers for delivery as natural gas to the National Transmissions System (NTS). The LNG Tankers are owned and operated by either:
- a) the shipper with whom the terminal has a contract, or;
  - b) a third-party organisation contracted to deliver the LNG to the terminal on behalf of the shipper with whom Grain LNG has a contract.
- 1.2 The purpose of this policy is to ensure that the operations of the terminal are not put at risk by giving Grain LNG the assurance that the ships it receives are in an acceptable condition and compatible with the Grain LNG terminal. It achieves this by ensuring that thorough vetting of ships is completed before they arrive at the terminal and after, where deemed necessary by the terminal.

**2. SCOPE**

- 2.1 This policy shall apply to all tankers which are or could potentially be used to deliver LNG to the terminal.

**3. AIMS AND OBJECTIVES**

- 3.1 The primary aim of this policy is to detail the approach that shall be taken in the ship vetting process to ensure that all aspects of tanker operations are systematically considered for effective assurance.

## 4. POLICY

### 4.1 General

4.1.1 All LNG Tankers shall be subject to approval process by the Grain LNG Marine Department in accordance with the Terminal Operating Procedures (TOPS) Annex M. This process shall occur:

- a) Before the LNG tanker is first used at the terminal, and;
- b) Thereafter, if the vessel has not visited the terminal in a period of 3 years from date of last approval (or visit), and;
- c) Thereafter, if Approval of the LNG Tanker is withdrawn for any reason.

Notwithstanding that it may have approved an LNG Tanker, Grain LNG shall have the continuing right to carry out reviews of the vessel management procedures of the Tanker Operator and to inspect the LNG Tanker, on a reasonable periodic basis or where Grain LNG has reasonable grounds for carrying out such a review or inspection.

4.1.2 For the purposes of satisfying Grain LNG as to the competence of the Tanker Operator, Master, officers and crew, and the compliance of the LNG Tanker and the Tanker Operator with the requirements of the General Terms and Conditions (GTCs) and with the standards required by Grain LNG for the safe, efficient and reliable operation of the Terminal and of LNG Tankers at the Terminal.

4.1.3 Shippers and LNG Tanker Operators shall ensure compliance with TOPS in all respects and as to the provision of information and access to the LNG Tanker, personnel and relevant safety management procedures on board the Tanker and/or at the Tanker Operator's offices as may be required.

4.1.4 Vetting shall be carried out in accordance with industry best practices as published by the Society of International Gas Tanker and Terminal Operators (SIGTTO) in "Ship Vetting and its Application to LNG" and inspections will be carried out in accordance with the Oil Companies International Marine Forum (OCIMF) *Ship Inspection Reporting Programme* (SIRE) scheme requirements with particular emphasis on ship/shore interface by Grain LNG staff or appointed representatives using a proprietary appraisal format.

4.1.5 Any LNG ship nominated for approval to berth at Grain LNG Terminal shall have a SIRE *Vessel Inspection Questionnaire* (VIQ) report available in the SIRE data base for Grain LNG download and use as an aid to preliminary assessment. All "first use" nominations shall be made with sufficient notice to ensure that a full inspection can be carried out in good time prior to the LNG Tanker's first arrival at Grain LNG Terminal.

4.1.6 Where the required VIQ is not available nomination shall be made with at least 60 days notice prior to intended first arrival of an LNG Tanker at Grain LNG in

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order to ensure that a full SIRE inspection can be carried out and any identified deficiencies corrected.

- 4.1.7 On subsequent arrivals, LNG tankers more than 15 years old shall have a SIRE VIQ report dated within the previous 6 months available to Grain LNG for downloading. LNG Tankers less than 15 years old are required to have a SIRE VIQ report dated within the previous 12 months available to GLNG for downloading.
- 4.1.8 Where an updated VIQ is not available any *Notice of Readiness to Discharge* will not be accepted until a satisfactory VIQ report has been obtained or a full inspection and revalidation of Approval has been carried out.

## 4.2 High Risk Observations

- 4.2.1 Grain LNG shall assess as High Risk any comments or observations made in VIQ's, during inspection or observed in operations at Grain LNG Terminal that has the potential to present a significant legislative, safety, security or environmental risk, or contravenes Grain LNG's health, safety and environmental expectations. Any of these observations shall by themselves make a vessel unacceptable for the Grain LNG Business and therefore result in withholding or withdrawal of Approval.
- 4.2.2 Listed below (in 4.3 – 4.13) are observations that should be assessed as high risk. The list is not comprehensive, and there may be other observations that are of sufficient gravity to be considered high risk, and similarly, an observation in the list might not necessarily warrant a high-risk rating, although this would be exceptional.
- 4.2.3 Deficiencies considered to be of a lower risk shall be reported to the LNG Tanker Operator so that they may be addressed by the LNG Tanker Operator and granting of Approval may then be re-considered.

### 4.3 Certification & Documentation

- a) An invalid or suspended International Ship Security Certificate
- b) Any trading certificate out of date, including periodical inspections not completed.
- c) Civil Liability Certificate (CLC), if applicable, issued by a non-international Protection and Indemnity (P & I) Club, or the Owner not as stated on the Certificate of Registry.
- d) A Safety Management Certificate not available, or the Safety Management Certificate or Document of Compliance not issued to the current managers.
- e) Out of Class, including Conditions of Class not having been completed on time, and Class periodical surveys not having been completed within the date range. This shall also include Conditions that have been deleted (Not completed) then re-issued as a new Condition of Class.
- f) Completely inadequate company operating instructions, regardless of International Safety Management (ISM) accreditation, and/or a lack of senior officer's adequate familiarity with them.
- g) Stability information either invalid or missing. Personnel unaware of, or unfamiliar with, operational restrictions on vessels with inherent stability problems, and/or a lack of adequate guidance available on board.

### 4.4 Crew Management

- a) Undermanned with respect to the Minimum Manning Certificate.
- b) Under qualified or inexperienced officers, or a dispensation issued for more than 6 months.
- c) Watch keeping duties being carried out by an unqualified person.
- d) The Master having less than 2 years LNG/Refrigerated LPG experience, the Chief Officer or Chief Engineer less than 1 year.
- e) Clear evidence of incompetence amongst senior officers.
- f) Evidence of serious breach, repeated deficiencies or significant lack of understanding or implementation of the requirements of the International Ship and Port Security (ISPS) Code
- g) LNG Tankers not manned with at least 3 deck officers (including the Master).
- h) Significant English language communication difficulties with terminal personnel.
- i) Insufficient crew on board to handle cargo work, moorings, or emergencies.
- j) Any of the top 4 senior officers and or persons with direct responsibility for the cargo without the appropriate qualification, Dangerous Cargo Endorsement or experience.



#### 4.5 Navigation

- a) Significant concern over navigational procedures (i.e. very poor position fixing, a complete lack of attendance to navigational warnings, etc.).
- b) In-use voyage charts out of date and/or not fully corrected or a complete lack of a chart and publication management system.
- c) Complete absence of passage planning being carried out (pertinent passage planning information should be on the chart, as recommended in 'Bridge Team Management').
- d) Important navigational equipment inoperative (e.g. the only gyro, or all radars).

#### 4.6 Safety Management

- a) TOPS requirements with respect to smoking restrictions not complied with.
- b) Significant non-compliance with Hot Work or Enclosed Space Entry permits and procedures.
- c) Use of non-intrinsically safe electrical equipment in gas hazardous areas (e.g. radios, torches, mobile telephones, pagers etc.).
- d) Flameproof electrical equipment in a poor or unsafe condition in gas hazardous areas.
- e) Lifeboat(s) or launching appliances inoperative.
- f) Main deck, pump room or engine room fixed fire-fighting systems inoperative.
- g) The vessel continuing to operate Unmanned Machinery Space (UMS) with an inoperative engine room fire detection system.
- h) The emergency fire pump or emergency generator inoperative.
- i) Clear evidence that key personnel are unfamiliar with the operation of the fire fighting and/or main life-saving equipment on board.
- j) A significant number of ports and/or doors open during cargo operations.
- k) Cargo Tank entry without proper purging or approval from Terminal Representative.

#### 4.7 Environmental Protection

- a) Evidence (documented or otherwise) that the ship has contravened the International Convention for the Prevention of Pollution from Ships "MARPOL" with regard to the disposal of oily water mixtures (engine room operations).
- b) Contaminated segregated ballast tanks.
- c) An overboard discharge from the sludge pump, that does not go through the Oily Water Separator (OWS).
- d) Scuppers inadequately plugged during bunkering operations.
- e) Clear infringements of MARPOL Annex V in the disposal of any garbage. (e.g. Burning of plastic in unsuitable incinerators, the mixing of plastic and food waste in over-side dump cans).

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#### 4.8 Structural Condition

- a) Any structural repair to tanks or to main weather decks carried out without the knowledge or approval of the Class Society.
- b) Any significant structural issues that warrant further investigation and which a Structures Superintendent would be better qualified to address.

#### 4.9 Cargo and Ballast Handling

- a) Any Gas leaks readily apparent. (except in testing of manifold connections)
- b) Cargo lines in poor overall condition, including the existence of soft patches and cement boxes.
- c) No portable gas detection or oxygen analysing equipment on board, or all the equipment inoperative, or senior officers unfamiliar with the operation and maintenance of the gas testing equipment.
- d) Complete lack of cargo planning and/or procedures.
- e) On vessels that routinely have bunkers that contain Hydrogen Sulphide (H<sub>2</sub>S) and there is clear evidence that no instruction is given by the company with regard to H<sub>2</sub>S precautions.
- f) The motor room (positive pressure) and/or compressor room (extraction) ventilation systems inoperative or incorrectly used.
- g) Poor maintenance of the seals between the Motor room and the Compressor room.
- h) Air Lock alarms inoperative.

#### 4.10 Mooring

- a) An anchor missing.
- b) Moorings in overall poor condition.
- c) Splices in mooring wires and ropes in poor condition, or insufficient tucks.
- d) Ineffective management of moorings whilst alongside.

#### 4.11 Communications and Electronics

- a) Unserviceable equipment rendering the vessel unable to communicate effectively.
- b) Emergency batteries unserviceable.

#### 4.12 Engine Room and Steering Gear

- a) Disabling the ship alongside without permission from the Port Authority.
- b) Defective steering gear.
- c) Insufficient officers familiar with emergency steering change-over procedures.
- d) A seriously defective main engine (limited power, etc.).
- e) One of two boilers not operational (excluding routine maintenance).
- f) Any critical safety device (e.g. steam turbine trips, crankcase oil-mist detector, boiler safety valves, fuel oil tank quick-closing valves), inoperative or disabled.
- g) Temporary repairs to engine room main sea water lines, or in a poor condition overall (i.e. significant hard rust apparent, particularly outboard of the ship's side valve).
- h) Significant engine room oil leaks which present a fire hazard.
- i) Significant bilge accumulations from leaking equipment.
- j) When vessel operating UMS, an oiler in the engine room alone at night.
- k) Deliberate acts to by-pass the Engine Room OWS.
- l) Missing oil splash covers on Diesel Generators, unsheathed fuel lines and other equipment, which are required for safe UMS operations.
- m) Significant exhaust gas leaks into the Engine room.
- n) Significant or continued smoke emissions from the funnel. (Environment protection expectation).

#### 4.13 General Appearance and Condition

- a) The overall appearance of the LNG Tanker or working spaces so poor that Grain LNG would not wish to be associated with it.

## APPENDIX A – REFERENCES

This Policy makes reference to the documents listed below

TOPS	Terminal Operating Procedures
“Ship Vetting and its Application to LNG”	SIGTTO

## APPENDIX B – DEFINITIONS

The definitions applying to this Policy are given below:

NTS	National Transmissions System
LNG	Liquefied Natural Gas
TOPS	Terminal Operating Procedures
GTCs	General Terms and Conditions
SIGTTO	Society of International Gas Tanker and Terminal Operators
OCIMF	Oil Companies International Marine Forum
SIRE	Ship Inspection Reporting Programme
VIQ	Vessel Inspection Questionnaire
CLC	Civil Liability Certificate
P & I	Protection and Indemnity
UMS	Unmanned Machinery Space
ISPS	International Ship and Port Security
OWS	Oily Water Separator
H2S	Hydrogen Sulphide

## APPENDIX C - DOCUMENT CONTROL

### c.1 Document Responsibilities

<b>Controlled Document Owner</b>	Roy Thomas, Marine Superintendent
<b>Controlled Document Approver</b>	Ed Carter, Operations Manager
<b>Controlled Document Author</b>	Roy Thomas, Marine Superintendent

### c.2 Document Review Panel

	<b>Name of Reviewer</b>	<b>Job Title of Reviewer</b>
1	Roy Thomas	Marine Superintendent
2	Ed Carter	Operations Manager
3	James Levermore	Marine Supervisor
4	Richard Crabtree	C&BA Manager

### c.3 Training Needs Analysis

Identified users <i>Specifically which roles must have an understanding of this WI</i>	Level of understanding <i>Aware, Does, Controls, Manages</i>	Training document <i>eg, Briefing sheet, Presentation</i>	Dissemination method <i>A, M – E-mail link &amp; brief C, D – Brief &amp; record evidence</i>	Time scale for roll out <i>Depends on significance / change</i>
Marine Dept	M	Policy Document	Email link and brief	One month

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**ENDNOTE****Comments**

Comments and queries regarding the technical content of this document should be directed to:

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