3. Approval Procedures for LNGCs

3.1. Exchange of Information – LNGC to FSRU Terminal

Whenever possible, the following information should be sent:

- LNGC's name, sign, and IMO Number
- Vessel Description and dimensions
- Arrival Draught
- Manifold details
- Information as shown in other sections of this document.

3.2. Exchange of Information – FSRU Terminal to LNGC

The FRSU Terminal should ensure that the LNGC is provided with the facility's Marine Operation Manual and advise the Carrier of any defects to the terminal equipment.

The mooring plan and communications during mooring should be specified. Both Masters should review and agree on the final plans as presented by the STS Organiser and the STS Superintendent. The information will be shared through the Joint Plan of Operation and should include the below:

- General Description
- Berth Information
- Plan for approaching the berth, environmental limits and approaching speed.
- Characteristics and number of tugs, mooring boats and other external facilities.
- Personnel Transfer Arrangements
- Emergency Procedures
- Information contained in the Joint Plan of Operations as referenced in Section 4.2.

3.3. Vessel Approval Procedures

All other LNGCs calling at the FSRU Terminal before being accepted by GAS TRADE S.A. must be in compliance with:

- International Standards (i.e. within the International Association of Classification Societies (IACS)
- Conventions, rules, guidelines, and regulations laid down by the International Maritime Organization (IMO).
- The Oil Companies International Marine Forum (OCIMF).
- International Group of Liquefied Natural Gas Importers (GIIGNL).

- Society of International Gas Vessels and FSRU Terminals (SIGTTO) (or any successor body of the same).
- Any other internationally recognized agency or organization with whose standards and practices it is customary for international operators of such vessels to comply, including holding a valid operational OCIMF Ship Inspection Reporting system (SIRE) certificate).

3.4. Statutory and Regulatory Compliance

Vessels calling at the Terminal must be maintained in compliance with applicable International Conventions and Classification Society requirements.

LNGC Master should be prepared to present valid certificates indicating compliance with statutory and class requirements. Vessels calling must comply with applicable TERMINAL ACCESS CODE (TAC) and the TERMINAL USER AGREEMENT (TUA).

In order to approve a vessel for loading/discharging at the FSRU Terminal, the following pre-study must be performed:

- Compatibility Assessment: SIGTTO format (SSCS Spreadsheet) confirmation list to be completed.
- Review of Vessel's drawings, certifications, and photographs
- Assessment of Dynamic Mooring Analysis
- Vetting Approval: Participating vessel vetting assessment.
- Past Vessel Performance feedback

3.5. Ship Compatibility

A full compatibility assessment should be available before the STS operation.

The purpose of the assessment is to:

- Confirm the suitability of the two vessels for the operation.
- Provide vessel with necessary information for the preparation before operation.
- Identify aspects that require special management.

Before vessels' first call to the FSRU, the user ensures that a Ship-to-Ship compatibility study (SSCS) according to general SIGTTO, Ship to Ship Transfer Guide and the FSRU specific requirements is in place. The user will submit by email to compatibility@gastrade.gr all documentation mention in section 3.6 to the FSRU Manager. A confirmation receipt should be sent within 60 minutes. In case such confirmation is not sent please contact the FSRU Manager (Contact details shown in Table 3) to confirm that the documents have been well received.

Upon completion of the SSCS, a compatibility assessment study will be prepared along with the acceptance message and vessel approval certificate. All needed documents will be forwarded to the FSRU Manager.

The FSRU Manager or relevant compatibility subject matter expert shall upload these documents in the Port Info Database for current and future reference.

Upon completion of the Ship-to-Ship compatibility study, a pre-transfer meeting might be proposed between the FSRU Manager, or delegate, the LNGC operator and the FSRU shore terminal operator, as applicable.

Indicative topics for review are the following:

- General information of the FSRU and the LNGC vessel.
- STS transfer equipment, manifold arrangements, working range & compatibility.
- Fender and Flat body position.
- Mooring arrangements & mooring tension limitation.
- Cargo pumps specification and arrangement.
- Short distance pieces & drawing.
- Emergency shut-down system.
- Ship to Ship link systems & Communication.
- Operating limitations.
- Loading rate and vapor handling.
- Other related items as applicable

Subject to a successful compatibility study, and the outcome of the pretransfer meeting, the FSRU approves the candidate LNGC for discharging.

3.6. Screening and Confirmation List

The following flowchart outlines the procedure for clearance and compatibility assessment implemented by GAS TRADE S.A when nominating participating LNGCs. The process involves two steps beginning with the Screening Process and upon successful assessment, the Compatibility Assessment. The nomination process involves a thorough documentary evaluation of plans/drawings and trading certificates of the nominated LNGC to determine the vessel's suitability.

GAS TRADE S.A. decision whether to allow an LNGC to berth at the FSRU Terminal will depend upon the prevailing or forecasted sea and weather conditions, as well as the handling qualities of the LNGC. Should an LNGC be rejected or delayed by GAS TRADE S.A. for any reason, GAS TRADE S.A. will provide the LNGC's Master or the Ship's Agent written reasons for the rejection or delay.

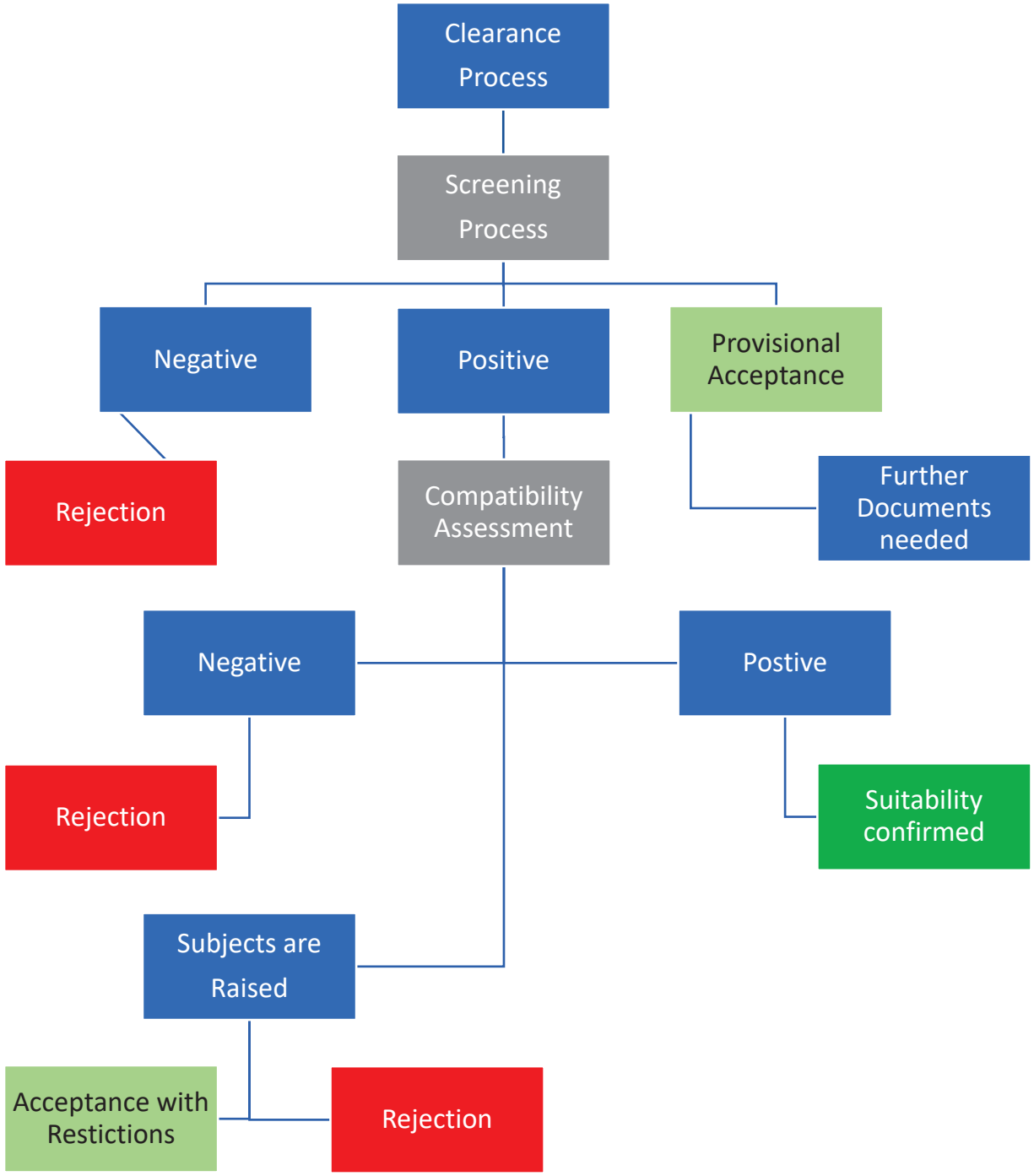

Figure 10 Screening Assessment Process

Below Table outlines the process of Suitability/ Compatibility Assessment in relation to the requested documents.

a/a	Process/Document
1	Vessel Description and/or Q88
2	SIGTTO Excel Worksheet information
3	Custody transfer monitoring system (CTMS) description and certification (temperature, tank level and volume)
4	Gas flow meter description and certification (if gas burned during transfer is available)
5	Ship's insurance documents (P&I Club and H&M coverage)
6	Certificate of Fitness
7	General Arrangement Plan
8	Mooring Arrangement Plan
9	Ship / shore interface plan (including manifold arrangement, manifold rail high/layout)
10	Trim and Stability booklet
11	VSL file for Optimoor study if available
12	Optimoor Study
13	International Ship Security Certificate
14	Class survey status report (Issued within the last 7 days)
15	Sister-Ship statement
16	Condition Assessment Program (CAP) certificate and report, if applicable
17	Latest Port State report
18	Date of latest SIRE report, observations and comments
19	Unloading/loading procedure including arm/hose draining standard procedure along with ramp up and ramp down procedure.
20	Draining and Purging procedures
21	Cooldown procedures of arms/hoses
22	Cargo tanks tables and cargo lines volumes.
23	Mooring procedure as per SMS (including berthing energy calculations)
24	Latest mooring inspection records and working hours of all mooring lines and tails
25	Reflex sheets or equivalent for emergency situations alongside and in port.
26	Muster list for emergency situations, ship and company organization chart to deal with these emergencies
27	Company policy regarding minimum manning in port
28	List of critical equipment's according to ISM code with relevant Risk Assessment
29	Company emergency contact list
30	Cooling down tank tables

a/a	Process/Document
31	Flange and SDP drawings
32	ESD system configuration along with ESD cause and effect diagram
33	Picture of manifold platform showing railing and manifold
34	Picture of personnel basket landing area
35	Vessel condition (e.g. ANKO in PDF file before and after operation)
36	Risk assessment for STS operation
37	Confirmation that the IGS System will be in full operational condition prior to and during the STS Operation

Table 5 Required documentation.

3.7. Vessel Approval Certificate

Following the clearance process, a certificate of approval or Clearance Certificate will be issued for each vessel. The validity period of the certificate will depend on the findings of the assessment. A vessel will be cleared/accepted for the FSRU ALEXANDROUPOLIS terminal throughout the duration of the Vessel Approval Certificate.

The onus is exclusively on the Master or Owner to ensure that the Vessel is seaworthy, and that all equipment is and remains in good working order and condition, including equipment required specifically for operations at the FSRU ALEXANDROUPOLIS terminal, subject that all re-assessment conditions, including initial approval conditions, are satisfied.

3.8. Dynamic Mooring Assessment Criteria

The following weather criteria need to be implemented for the dynamic mooring assessment. Results output should be forwarded to GASTRADE/ DYNAMARINe for review.

Case	Vessel combination	Winds knots/Dir*	Waves Hs (m) / Tz (s)/ Dir*	Swell Hs (m) / Tz)/Dir*
1	FSRU (B) Guest (L)	25kts/115	1.0m/ 5 sec / 160	0.35m / 5.0 sec /160
2	FSRU (B) Guest (L)	25kts/115	1.0m/ 5 sec /160	0.35m / 5.0 sec / 070
3	FSRU (B) Guest (L)	25kts/115	1.0m/ 5 sec/ 115	0.35m / 5.0 sec / 012
4	FSRU (L) Guest(B)	25kts/115	1.0m/ 5 sec / 160	0.35m / 5.0 sec /160
5	FSRU (L) Guest(B)	25kts/115	1.0m/ 5 sec /160	0.35m / 5.0 sec / 070
6	FSRU (L) Guest(B)	25kts/115	1.0m/ 5 sec/ 115	0.35m / 5.0 sec / 012

Table 6 Dynamic Mooring Assessment Criteria

*Direction of wind and waves is TRUE and not relative to FSRU heading.